

UNIVERSIDADE TÉCNICA DE LISBOA
INSTITUTO SUPERIOR DE ECONOMIA E GESTÃO

PHD THESIS IN MANAGEMENT

USING THE DYNAMIC CAPABILITIES PERSPECTIVE TO
ANALYSE CRM ADOPTION: A MULTIPLE CASE STUDY IN
PORTUGUESE ORGANISATIONS

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Lisbon, June 2009.

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ABSTRACT

Customer Relationship Management (CRM) adoption is both a relevant research topic in academia and a challenge for practitioners. We understand CRM as a complex concept that includes technology, strategy and philosophy. In this research, we propose an analysis of CRM organisational competences and capabilities. The main goals are: to observe organisational competences and capabilities in order to find ways in which companies obtain success with their CRM initiatives; and to apply a dynamic capabilities perspective as the main theoretical point to analyse how companies can improve their competences related to customer relationship management. In order to achieve the purpose of this study a qualitative, interpretative, case-based research strategy was implemented. We first conducted an exploratory case study in a Brazilian Telecommunications company in order to define the focus of the research and research questions. Afterwards, we conducted a main case study in a Portuguese Telecommunications company for one year, and finally, we conducted four more case studies in Portuguese organisations to develop the research findings. These multiple case studies were based on semi-structured interviews and document analysis. We used qualitative techniques to analyse the collected data and ground our interpretation in two theoretical approaches: value focus thinking and dynamic capabilities. We propose a theoretical framework related to CRM dynamic capability that is corroborated with empirical evidence. We believe that because organisations which adopt a CRM strategy are in a competitive environment, a dynamic model needs to be used to analyse and explain how they can improve their CRM strategy in order to achieve success. As a second contribution we identify a set of competences that need to be developed in order to manage customer relationships effectively.

Keywords: CRM (Customer Relationship Management), Relationship Marketing, Information System, Dynamic Capability, Organisational Competences, Case Study.

RESUMO

A adoção de *Customer Relationship Management (CRM)* é um tema considerado relevante para as investigações acadêmicas e um desafio para os praticantes. CRM neste trabalho é entendido como um conceito complexo que envolve tecnologia, estratégia e filosofia. Esta investigação propõe uma análise sobre as competências e as capacidades organizacionais relacionadas ao CRM. As principais motivações deste estudo referem-se às problemáticas observadas nas adoções de CRM, sendo que as lentes da teoria das Capacidades Dinâmicas mostram-se relevante na análise das capacidades e competências organizacionais necessárias ao sucesso da iniciativa de CRM. A fim de alcançar o propósito deste estudo, foi realizada uma investigação qualitativa, interpretativa e baseada em estudos de caso. Primeiramente foi conduzido um estudo de caso exploratório numa empresa Brasileira de telecomunicações com o intuito de melhor definir o foco da investigação e das questões de investigação. Após foi conduzido o estudo de caso principal em uma empresa de telecomunicações Portuguesa ao longo de um ano. Finalmente foram conduzidos outros quatro estudos de caso em organizações Portuguesas com o intuito de aprofundar a discussão dos resultados da investigação. Foram realizadas entrevistas semi-estruturadas e análise de dados secundários. Para a análise dos dados foram utilizadas técnicas qualitativas e duas teorias ajudaram a suportar as interpretações realizadas: *value focus thinking* e *dynamic capabilities*. Como contribuições desta investigação tem-se a proposição de um *framework* teórico sobre a capacidade dinâmica CRM que foi corroborado com evidências empíricas. As organizações que adoptam CRM estão inseridas em ambientes de grande competitividade e um modelo dinâmico precisa ser utilizado para analisar e explicar como elas aprimoram suas estratégias de CRM para ter sucesso. Como segunda contribuição foi identificado um conjunto de competências organizacionais que são necessárias para a gestão do relacionamento com o cliente.

Palavras-chave: CRM, Gestão do Relacionamento com o Cliente, Marketing de Relacionamento, Sistema de Informação, Capacidade Dinâmica, Competências Organizacionais, Estudo de Caso.

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LIST OF ABBREVIATIONS

ADSL	Asymmetrical Digital Subscriber Line
AP	Attendant Post
B2B	Business to Business
B2C	Business to Consumer
CEO	Chief Executive Office
CIC	Customer Interaction Centre
CIO	Chief Information Officer
CLTV	Customer Lifetime Value
CRC	Customer Relationship Centre
CRM	Customer Relationship Management
CSF	Critical Success Factors
DM	Data Mining
DW	Data Warehouse
EBITDA	Earnings Before Interest, Taxes, Depreciation and Amortization
e-CRM	Electronic CRM
ERP	Enterprise Resource Planning
FAQ	Frequently Asked Questions
IS	Information System
IT	Information Technology
IVR	Interactive Voice Response
KPI	Key Performance Indicators
MNO	Mobile Network Operator
MVNO	Mobile Virtual Network Operator
OLAP	Online Analytical Processing
PRM	Partner Relationship Management
RBV	Resource Based View
R&D	Research and Development
RSS	Really Simple Syndication
ROI	Return On Investment
ROR	Return On Relationship
SCM	Supply Chain Management
SFA	Sales Force Automation
SL	Service Level
SLA	Service Level Agreement
SMS	Short Message Service
SOHO	Small Office Home Office
VoIP	Voice Over Internet Protocol

CHAPTER I

Introduction

1.1 Research rationale

The relationship between companies and their customers is a subject that emerges with market genesis. Since the end of the 90's a new "buzzword" related to this topic has been present in organisations: Customer Relationship Management (CRM). This expression is closely connected to Relational Marketing and Enterprise Information Systems. CRM results from the increase in competitiveness amongst companies, the advent of the information age, higher product quality, changing life styles, globalisation, and other factors. Today, CRM is an item in the organisation's agenda and a relevant subject to study in the academic environment.

Many large companies, in different industry sectors, have tried to adopt CRM at least once. These projects were frequently cancelled and now companies are starting new projects (Peppers and Rogers, 2004). They make an effort (financial, human, technological, etc.) in CRM adoption, because they are either looking for a way to obtain a competitive advantage, or they are forced by their competitors or customers.

For many years, CRM has been an important topic only for Information Technology (IT) consultancy companies (Coltman, 2007). This was because software houses tried to find other profitable products to sell, since Enterprise Resource Planning (ERP) systems had been adopted by a large number of companies. Light (2003) says that managers saw CRM packages as another "silver bullet", but it was not until the mid 1990s that the need to manage relationships was embraced. "Perhaps this may be linked to the growth of CRM packages, rather than the concept of relationship marketing or CRM per se" (Light, 2003, p.605). Consultancy firms have been profiting by selling this type of

“Information Technology (IT) solution”, which promises a competitive advantage by using IT to support a closer relationship between an organisation and its customers. According to IDC forecasts, worldwide sales of CRM applications would increase by a compounded annual growth rate of 8.9 percent between 2004 and 2008 (Raman et al., 2006, p.39). Band (2006) states that enterprises will continue to make significant investments to improve their customer-facing capabilities. A Forrester report, related to the CRM best practices adoption, affirms that organisations will continue to spend heavily on CRM: \$11 billion annually by 2010 (Band, 2008).

Despite the technological promotion related to CRM adoptions, this business approach is based on Relationship Marketing values. According to Morgan and Hunt (1994), Relationship Marketing can be defined as all marketing activities aiming to establish, develop, and maintain a relational successes exchange. The main idea is to conduct a commercial relationship for a long time and increase the value for both sides of the dyad (customer and company). In this case, IT is basically a means for a company to put this business strategy in practice. Even though CRM has covered different concepts over time, in this thesis we understand CRM as a broad business approach that involves Relational Marketing concepts and can be supported by IT artifacts and techniques.

In spite of CRM and Relational Marketing bringing important values that have since been forgotten along the way (Gummesson, 1998), many companies that tried to adopt this initiative did not obtain the return they had hoped for. Payne (2006, p.20) highlights quotations from Insight Technology Group, The CRM Institute and Giga and Gartner regarding the performance of CRM initiatives: 69 per cent of CRM projects have little impact on sales performance; companies think that their CRM projects are significantly less successful than their consultancies or suppliers; 70 per cent of CRM initiatives will

fail over the next 18 months; and 60 per cent of CRM projects end in failure. The author claims that these quotations are related to specific failures of IT implementation in CRM initiatives and much more attention is needed to develop superior customer relationships.

After many organisational CRM initiatives had failed, part of the business academic community - mainly Marketing and Information System (IS) - focused their attention on this problem. Several researchers have tried to develop basic CRM concepts (Boulding et al., 2005; Ngai, 2005). Despite not being able to consider CRM at a mature level, it is possible to find a group that has been working on the development of this area.

Several authors have identified problems that lead to CRM failure. First of all, with CRM adoption, many organisations need to change their main strategy (vision, objectives, etc.) to focus their efforts on customers. When trying to change their focus to a customer orientation, these companies often face cultural problems (Ryals and Payne, 2001; Yu, 2001; Rigby et al., 2002; Rigby and Ledinghan, 2004). Companies must recognise that customers, not just products, drive profits (Ryals and Knox, 2001; Kale, 2004). Another common failure stems from the inadequacy of methodologies that are used to approach a CRM project (Chalmeta, 2006); they do not satisfactorily integrate and complement the strategic and technological aspects of CRM. Frequently, a CRM software becomes part of the solution, but does not drive the strategy (Rigby et al., 2002). Many business bases have been reconstructed in order to meet customers' needs better. Rigby et al. (2002) and Chalmeta (2006) are concerned with a CRM project failure related to a lack of redefinition of processes. In order to improve the response to customers' needs, companies must simplify the customer interface and improve the previous process.

Top management has an important role in a CRM initiative. According to Ryals and Payne (2001) and Yu (2001), many projects dramatically exceed their forecasted cost and sometimes even their scope. This and other events hinge upon the presence of a champion or top-level sponsor who is committed to seeing the innovation through (Zablah et al., 2004; Kale, 2004; Chalmers, 2006). Probably, a weak presence of top management stems from the failure to understand the business benefits of the CRM initiative. Many managers perceive only the high cost of CRM adoption and fail to understand the potential financial benefits of the earlier stages of CRM project (Ryals and Payne, 2001; Rigby et al., 2002). An inadequate measurement system is linked with this question. As the organisation often does not know exactly what they want to achieve with a CRM adoption, measurement is very poor or simply does not exist at all (Ryals and Knox, 2001; Ryals and Payne, 2001; Winer, 2001; Rigby and Ledinghan, 2004). Measures, as Customer Life Time Value (CLTV), receive insufficient appreciation (Kale, 2004).

A different cause of failure relates to technological aspects. Light (2003) highlights the lack of skills in building and using a new IT-based CRM system. Although companies are becoming more technology dependable, the implementation process is becoming more streamlined, and the failure rate is decreasing, it is not yet simple to install a CRM system and integrate it with other enterprise systems (Rigby and Ledinghan, 2004). Another question refers to the lack of flexibility in the software (Light, 2003). CRM refers to a relationship which has a dynamic nature; the software must therefore be flexible enough to follow evolution in the relationship. According to Ryals and Knox (2001) and Zablah et al. (2004), a common failure in a CRM initiative is due to the lack of final user involvement in designing the CRM technological solution. In such a case there is the risk of developing a system that brings more

problems than solutions to the users who are supposed to benefit from it (Chalmers, 2006).

While exploring the CRM literature, we found a lack of research dealing with CRM competences and capabilities research. Few studies considered the strategic aspects and marketing relationship values in CRM adoption. Research related to CRM organisational capabilities (Day, 2000; Gibbert et al., 2002; Dibb and Meadows, 2004; Rogers, 2005) has demonstrated the need for constant changes in organisational processes in order to adopt and manage a customer relationship strategy. Wang and Su (2004) discuss the role of organisational competences in customer-focused performance.

All these CRM adoption failures presented in the literature must be considered. However, we believe that the fundamental problem of CRM is the company's understanding of their "relationship" with a customer. Additionally, issues such as the way in which the companies establish CRM objectives as well as the competences and capabilities that have dynamic nature need to be developed.

Throughout the literature review, arguments and discussions about previously mentioned problems with CRM adoption can be found. Plakoyiannaki and Tzokas (2002) believe that one reason for the discrepancy between theory and practice is the lack of guidelines to assist firms to identify and develop capabilities, thus enabling the CRM system. Other marketing scholars have turned their attention to the core capabilities of the firm that are essential while developing and maintaining good relationships. Boulding et al. (2005) discuss the need to establish good information processes and capabilities within the firm in order to understand the needs and requirements of customers, thus making firms more efficient and effective in managing customer relationships. Wang and Lo (2004) argue for additional research related to

how to create infrastructure and systems that reflect new organisational forms and competences to perform the customer focus orientation.

Despite the arguments presented before, rare are the studies related to organisational competences and capabilities that help companies to constantly renovate the relationship with customers, in order to sustain “this customer relationship” as a competitive advantage. Meyer and Kolbe (2005) explore the relevance to study the key resources that result in competitive advantages and corporate performance in CRM initiatives. Finally, Coltman (2007, p.301) highlights that “superior CRM capability can create positional advantage and subsequent improve performance”.

One of the challenges of CRM research is the need for an interdisciplinary view (Zikmund et al., 2003; Payne, 2006). At least three different knowledge areas need to be considered: Marketing, Information Technology and Human Resources. Ward and Peppard (2002) state that many organisations fail to realise that the Information System (IS) strategy is the essential link between business strategy and the use of IT. In a CRM strategy context we have to consider relational marketing values in the business strategy, too. All these arguments highlight the multidisciplinary view that is essential for a CRM strategy management. Due to that fact, the present research integrates different views and is underpinned by various academic disciplines.

1.2 Research scope and objectives

This study intends to address the following questions:

- a) Which organisational competences should be developed in a CRM initiative?
- b) How these CRM organisational competences relate to each other in a CRM initiative?
- c) Which dynamic capabilities should be developed in a CRM business approach?

In order to analyse these questions the Dynamic Capabilities approach is used. The Dynamic Capabilities perspective is a conceptual framework focused on the capability of resource reconfiguration. This framework has been widely accepted in the literature (Eisenhardt and Martin, 2000). The theoretical approach focuses on observation of how companies that work in a turbulent environment and with constantly technological changes obtain a competitive advantage (Teece, 2007).

According to Eisenhardt and Martin (2000, p.1107), Dynamic Capability can be defined as “organisational and strategic routines by which firms achieve new resource configurations as markets emerge, collide, split, evolve, and die”. Even though this theory has received some criticism (Zahra et al., 2006), we consider it adequate to help us give a new perspective to organisations in a changeable environments that decide to invest in a CRM initiative. In a Dynamic Capability perspective the main argument is the organisation’s ability to develop high level capacities throughout their path, in order to sustain a better development (Helfat and Peteraf, 2003; Marcus and Anderson, 2006).

The present research aims to contribute to the consolidation of CRM research area, including dynamics perspective as a way to observe this phenomenon. The main motivations are to study CRM adoption, observing organisational competences and capabilities in order to find ways in which companies could obtain success with their CRM initiative; and to apply a dynamic capabilities perspective, as the main theoretical point to analyse how companies can improve their competences related to customer relationship management on a daily basis.

This research aims to understand the main CRM capabilities, competences, and resources that should be developed in the organisation, and to observe the dynamic nature of these capabilities and the extent of its influence on the development of a CRM

initiative. It will analyse how companies draw up the configurational path of their organisational resources and competences inside their CRM initiatives.

This research adopts the case study method in order to formulate answers for the research questions. We analyse five different Portuguese companies who adopted a CRM initiative. In relation to research findings we aim at proposing theoretical and practical contributions, offering a framework related to CRM dynamic capability and a net of CRM organisational competences.

1.3 Thesis structure

The thesis is organised in eight chapters. The first chapter presents the research objectives and explains the choice of the subject. The second chapter presents a literature review of CRM research. Chapter three discusses the dynamic capabilities perspective. In chapter four we present the philosophical perspective and the choice of research strategy, taking into consideration the nature of the research questions.

Chapter five reveals the outcome from the exploratory study conducted on a Brazilian Telecommunication company that passed through CRM adoption. Then, chapter six reports on the summaries of the case studies and highlights the relevant issues found in each case.

Chapter seven uncovers our interpretation and analysis of the cases. First, we focus on a CRM concept perspective, obtained in the cases. Afterwards, we consider new theoretical approaches to support the analysis of CRM adoption: value-focused thinking and dynamic capabilities - to discuss the empirical evidence found in the fieldwork.

In chapter eight we analyse the findings in comparison with previous empirical literature on the subject, and propose some research conclusions. We also present the thesis contribution for the literature and practitioners. Finally, we report the limitations of the study and point out possible areas for further research.

CHAPTER II

Customer Relationship Management - A literature review

2.1 Introduction

This literature review describes our main reflections on theoretical perspectives and a set of values that have been guiding this thesis. As CRM can be considered a new topic in the academic environment, it is important to review and analyse different concepts from the literature, in order to propose a definition that reflects a common understanding of CRM in this research. We also reviewed a concept of success in a CRM adoption project and the main companies' objectives with this initiative.

We discuss the literature related to CRM taking into account the critical factors of success, considering three approaches of CRM: technological, strategic and philosophical. This review helps us to formulate the guide for data collection in the case studies.

2.2 The Multiple Definitions of CRM

Research progress often comes from the application of multiple lenses to the same phenomenon (Kuhn, 1962). CRM adoption can be considered a recent phenomenon in organisations. Throughout the literature review we can find different CRM definitions (Coltman, 2007). Several authors, such as Payne and Frow (2005), Plakoyiannaki and Tzokas (2002), Ngai (2005), among others, demonstrate their concern regarding the companies' results in relation to the understanding of the concept. It is important to remember that as IT consulting companies play an important role in the dissemination of CRM ideas, the authors are frequently influenced by the way that vendors define CRM.

By analysing the different CRM definitions, we have concluded that they can be classified into three main “CRM approaches”. These three different perspectives are shown in Table 1.

- a) Philosophy of CRM - a set of values that have to be considered above all kinds of strategies or technologies. A CRM philosophy is related to a customer-oriented culture, keen on building and cultivating long-term relationships with customers;
- b) Strategy of CRM - an organisational strategy that drives functional plans and actions toward building relationships with customers;
- c) Technology of CRM - focuses on the role of IT being used to gather, analyse and apply data to build and manage relationships with customers.

Table 1. Different CRM perspectives

Approach	Prior literature description	Source
Philosophy of CRM	CRM is an IT enhanced value process, which identifies, develops, integrates and focuses the various competencies of the firm to the “voice” of the customers in order to deliver long-term superior customer value, at a profit, to well identify existing and potential customer segments.	Plakoyiannaki and Tzokas (2002, p.229)
	(...) most effective way to achieve loyalty is by proactively seeking to build and maintain long-term relationship with customers.	Zablah et al. (2004)
	The philosophical bases of CRM are a relationship orientation, customer retention and superior customer value created through process management.	Ryals and Knox (2001, p.2)
	A philosophy of doing business that will affect the entire enterprise.	Newell (2003)
	When defined as a philosophy, CRM refers to the idea that the most effective way to achieve such loyalty is by proactively seeking to build and maintain long-term relationships with customers.	Zikmund et al. (2003)
Strategy of CRM	“(...) An interactive process achieving the optimal balance between corporate investments and the satisfaction of customer needs in order to generate the maximum profit”.	Dous et al. (2005, p.169)
	(...) as the utilisation of knowledge form, from and about customers in order to enhance the customer-relating capability of organisations.	Croteau and Li (2003)
	Resources destined for relationship building and maintenance efforts should be allocated based on customers’ lifetime value to the firm.	Zikmund et al. (2003)

Table 1 (continue).

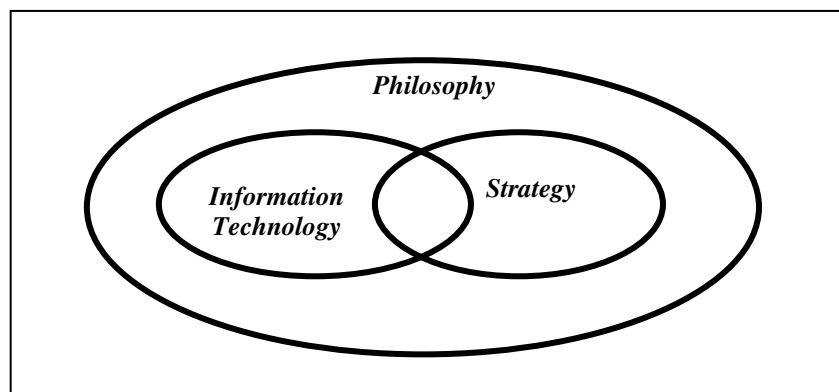
Approach	Prior literature description	Source
	“(…) the strategic use of information, processes, technology, and people to manage the customer’s relationship with your company (Marketing, Sales, Services, and Support) across the whole customer life cycle”.	Kincaid (2003, p.41)
	“(…) is a customer-focused business strategy that dynamically integrates sales, marketing and customer care service in order to create and add value for the company and its customers”.	Chalmeta (2006, p.1015)
	“(…) a comprehensive strategy and process of acquiring, retaining, and partnering with selective customers to create superior value for the company and the customer”.	Parvatiyar and Sheth (2001, p.5)
	“CRM is the core business strategy that integrates internal processes and functions, and external networks, to create and deliver value to targeted customers at a profit”.	Buttle (2004, p.39)
Techno- logy of CRM	“To some executives, customer relationship management is a technology or software solution that helps track data and information about customer to enable better customer service”.	Peppers and Rogers (2004, p.5)
	Technology does play a substantial role in CRM efforts by, seamlessly linking front and back office functions to provide for the efficient and defective management of interactions across different customer touch-points.	Zablah et al. (2004, p.479)
	CRM is a macro level process that subsumes numerous sub-processes, such as prospect identification and customer knowledge creation.	Srevastava et al. (1999)
	“Leveraging technology to engage individual customers in a meaningful dialogue so that firms can customize their products and services to attract, develop, and retain customers”.	Campbell (2003, p.375)
	“a coherent and complete set of processes and technologies for managing relationships with current and potential customers and associates of the company, using the marketing, sales and service departments, regardless of the channel of communication”.	Chen and Popovich (2003)
	“CRM packages should therefore be seen as being useful for the assisting in the operationalisation of relationship marketing concepts”.	Light (2003, p.605)
	“Such ‘software, tools, systems’ can be viewed as technology-based applications to support the CRM process. (…) should include database capabilities to collect and analyze customer information using statistical techniques such as data mining”.	Ngai (2005, p.588)
	CRM is a technology-enabled business management tool for developing customer knowledge to nurture, maintain, and strengthen profitable relationships.	Sue and Morin (2001)

Considering the last approach (technological perspective of CRM), CRM is frequently viewed as an information system (commonly a software package) or a group of tools (hardware and software) such as powerful databases, data mining tools, sales force automation applications, call centre technologies, web systems (e.g. portals), amongst others, applied to help firms identify customers, support market segmentation, interaction with customers, and personalisation of products and services (Peppers and Rogers, 1997).

According to the above business logic, the main idea is to use IT to develop, for instance, target marketing, while saving money on untargeted, wasteful promotional campaigns. Another regular goal is to reduce the costs of attending or interacting with customers, such as in the current widespread diffused “call centres”. All the IT tools listed above, especially powerful database technologies, can also be used to support up-selling and cross-selling tactics (O’Malley and Mitussis, 2002; Peppers and Rogers, 1997). Another common application of IT tools is to calculate the customer’s life-time value (Ryals and Payne, 2001). Nevertheless, several authors agree that without a philosophical or strategic CRM approach, the application of IT for CRM efforts is meaningless or at least incomplete (O’Malley and Mitussis, 2002; Langerak and Verhoef, 2003; Payne, 2006; Peppers and Rogers, 2004; Gummesson, 1998; Newel, 2003).

The philosophical approach of CRM is related to positive attitudes concerning all kinds of stakeholders. It involves a deep understanding of what a relationship means and of all implications related to the establishment of a relationship (such as trust, common objectives, increasing value on both sides, etc.). This philosophy is supposed to guide organisational and functional strategies; these strategies, in turn, would have to guide IT applications for CRM - Figure 1.

Figure 1. A perspective of the different CRM approaches



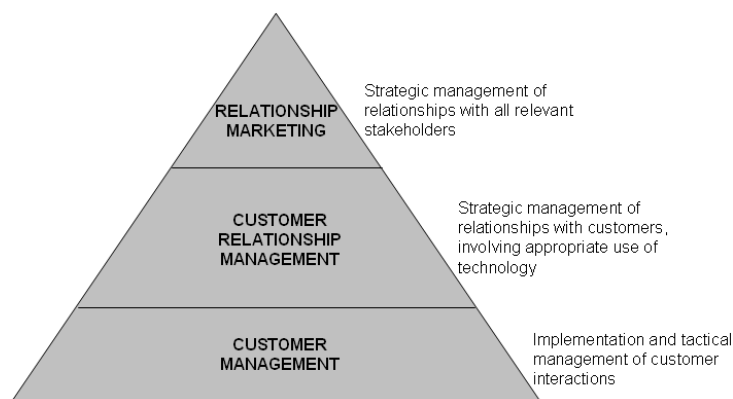
Organisations may understand CRM in different ways. Sometimes, each department within the same organisation has an individual understanding of CRM and it is approached differently along the way. In our view, Figure 1 represents a complete perception of CRM nature. This figure shows that the CRM philosophical approach encompasses the information technology and the strategic approach. However, some companies use only the technological approach, others just the strategic approach, and others both. Nevertheless, the most integrated view that allows companies to be more competitive is, in our opinion, the CRM philosophical approach. If we consider that a “CRM philosophy” is the background for any strategy and CRM IT application, we have to understand better what it really means.

Payne (2006, p.22) shares this integrated view: “CRM is a strategic approach concerned with creating improved shareholder value through the development of appropriate relationships with key customers and customer segments. CRM unites the potential of IT and relationship marketing strategies to deliver profitable, long-term relationships”. According to the author, the most important CRM feature providing enhanced opportunities to use data and information both to understand customers and implement relationship marketing strategies better. He argues that information

technology allows the cross-functional integration of people, operations, processes and marketing capabilities.

In Figure 2, Ryals and Payne (2001) present the hierarchy approach of new organisational topics. They are derived from a company's need to find a new strategy advantage. Ryals and Payne's (2001) study confirmed that while the terms "Relationship Marketing, CRM and Customer Management" are used indistinguishably in a majority of organisations, certain common patterns exist in the way the terms are used.

Figure 2. Relationship marketing hierarchy, CRM and customer management



Source: Payne (2006, p.22)

This figure improves our understanding of different initiatives related to close relationships between companies and their stakeholders. If we try to establish a relation between Figure 1 and Figure 2 concepts, we can observe the following:

- a) Relationship Marketing is connected to the Philosophical approach of CRM. Accordingly, the strategic values are the philosophy that guides companies to develop and maintain a good relationship with their stakeholders.
- b) Customer Relationship Management is linked with CRM Strategy. This view can cover the other two perspectives, that is, in order for companies to adopt a CRM strategy, the synergic effect of philosophy and IT approaches is needed.

c) Customer Management is connected to CRM information technology. This link is justified by the companies that understand CRM as IT and are only interested in developing actions to automate customer interactions.

We recognise that multiple CRM definitions are present in the academic literature and market environment. This is not only a semantic problem - it reflects the organisational goals and it is related to the results (and benefits) that companies hope to achieve with such an initiative. Especially for this research, it is relevant to observe that the CRM concept could influence the development of different organisational capabilities.

In this research, we understand CRM as a complex concept that includes (1) a philosophical approach that guides all kinds of relationships between a company and their stakeholders, (2) a strategic view that focuses the organisational plans and actions on a close relationship with, at least, the customer, and, finally, (3) an IT view, since we believe that companies use the IT structure conditions to implement their values.

2.3 What are the objectives of the CRM project?

According to Ward and Peppard (2002), a key element in any business is to define organisational objectives. They reflect the values held, by managers and major stakeholders. The objectives will set specific measurable targets to be achieved in a given project. In Table 2, we can observe some enterprises' objectives regarding CRM adoption as pointed out in the literature. We have classified the objectives according to the CRM approaches proposed before: philosophical, strategic and technological.

Table 2. CRM Objectives

Objectives/Source	CRM approach		
	Philosophy	Strategy	IT
Increase customer retention. (Ryals and Payne, 2001; Bohling et al., 2006)		X	
Increase the Customer Lifetime Value - CLTV. (Peppard, 2000; Ryals and Payne, 2001; Zikmund et al., 2003)		X	
Retaining and expanding share of existing customer base. (Bohling et al., 2006)		X	
Offer a customised product. (Zikmund et al., 2003; Bohling et al., 2006)		X	
Increase value for both sides of the relationship/company and customer. (Ford et al., 2003)	X		
Improve organisational operational effectiveness and deliver value to the organisation. (Adebanjo, 2003; Bohling et al., 2006)		X	X
Improve and extend customer relationships, generate new business opportunities. (Chalmeta, 2006)	X	X	
Transform the customer information into knowledge to company. (Croteau and Li, 2003)	X	X	
Choose the most valuable customers. (Cao and Gruca, 2005)		X	X
Augment e-commerce relationship between customers and companies. (Bradshaw and Brash, 2001)		X	X
Maximise customer satisfaction, through offering a better service. (Chalmeta, 2006)	X	X	
Develop more profitable relationship with customer. (Buttle, 2004)		X	
Deepening the relationship between product/service and the customer. (Bohling et al., 2006)	X	X	

Although we have classified CRM objectives in specific dimensions, this does not mean that an objective must be selected only in a defined dimension - the table shows the dominant focus.

We can observe that the CRM objectives that are mentioned in the previous literature are related to the reduction of customer costs and the increase in a company's revenue. Objectives are also related to reducing customers' switching costs and

improving knowledge, and support for customers and their needs. Some objectives are very operational and related to the company's operational effectiveness. On the other hand, we have strategic objectives that focus on customer profitability and philosophical objectives that are more concerned with the increase of value for both sides of the relationship - not just for a company but for customers as well.

These objectives were presented because we believe that a close relationship exists among (1) the CRM concept that companies assume, (2) the objective that companies follow with the CRM initiative, and (3) the critical factors that allow companies to achieve the goals mentioned above. These definitions are considered critical and the results of CRM initiatives depend on them. On the other hand, it is relevant to mention that some organisations change their CRM approach along the way, hoping to achieve different results.

2.4 CRM Critical Success Factors

“Critical Success Factors (CSF) are the few key areas where ‘things must go right’ for the business to flourish” (Ward and Peppard, 2002, p.191). Determining CSF may help to crystallise a company's objectives, to emphasise priority activities, and to monitor progress.

When we try to define CRM success we must take into consideration that in our definition of CRM we have not only a technological approach, but strategic and philosophic approaches as well. Therefore we must observe not only essentially technical variables, like system reliability, response time, data accuracy, systems flexibility and easiness of use (Caldeira, 1998), but also try to evaluate strategic aspects and questions related to human nature.

Dhillon (2004) argues that we can build success into IS implementation project if a company addresses a broad spectrum of both technical and organisational issues. Ward

and Peppard (2002, p.35) discuss seven factors that enable strategic information systems to be successful. Within these factors we highlight the following for the CRM business approach:

External, not internal focus - enterprises need to look at customers, competitors, suppliers, and other external stakeholders. Despite, historically, IS/IT being focused on internal processes and issues, the CRM business approach is completely focused on the external environment. According to Rigby et al. (2002), enterprises that work with CRM, transform their entire business, looking at the customer as the centre of their philosophy. The internal side of a company must observe the market dynamics (customers, community, shareholders, suppliers, distributors and, dealers) at all times, in order to move in an efficient way and to gain competitive advantage.

Adding value, not cost reduction – for a company to be successful, it must offer better products and better services. In order to achieve these results, companies should not invest at reduced marginal costs but increase the value of the product or service offered to a customer. According to Payne (2006), the notion that competitive advantage stems from the creation of value for the customer and for the company is the key to any successful relationship.

Sharing the benefits - this means not only to share the benefits but also to commit stakeholders (internal and external) to success. For example, if customers know the benefits of using a web system (portal) to input data about themselves, probably success rates will increase in order to develop an efficient relationship.

Understanding customers - the authors refer to what customers do with the product or service, that is, how they obtain value from it. Understanding a customer is mandatory for companies to be successful. The more the organisation is prepared to

learn from a customer in a close relationship, the more it can provide exactly what the customer wants and the more the customer will invest in the relationship.

Business-driven innovation, not technology-driven - the authors cast doubt on the idea of competitive advantage from IT. They argue that IT provides or enables a business opportunity or idea to be converted into reality. We can observe CRM as a way to put the Relationship Marketing values in practice, using IT tools and strategic methodology. In this sense technology is understood as a facilitator in the process of CRM (Rigby et al., 2002).

Incremental development - all organisational efforts made to adopt CRM can be undertaken in an incremental way. These efforts include technology acquisition, human resource training, processes' redesign, and others. According to Peppers and Rogers (2004), information technology can be adopted gradually, that is, the company should not implement all kinds of IT tools at the same time. Chalmers (2006, p.1020) claims that "to achieve real implementation of the CRM strategy, it is important to have the right technology for automating and improving the business process associated with managing the company's relations with its customers". In order to do all these activities companies must adopt a gradual approach.

Using the information gained from enterprise systems to develop the business - this means that all customer data need to be planned before being collected. In a CRM initiative, the customer data model is a factor of success. For companies that adopt CRM, some activities like collection of customer data, the interpretation of data analysis and the dissemination of resultant customer knowledge are relevant (Payne, 2006).

We consider CRM a successful organisational initiative if it has sustainability in relation to the objectives that were previously defined for it. According to Ward and Peppard (2002, p.53), from an IS perspective, sustainability can be defined as "an

organisation's ability to continually deliver explicit business value through IS/IT, thus leading to advantage". In the same sense, we can state that CRM is successfully adopted in a company if this business strategic approach allows continuous delivery of business value through "a relationship between company and customer", thus leading to a competitive advantage.

Coltman (2007) states that in order to achieve a successful CRM initiative a combination of human, technological, and business capabilities is necessary. According to the author (p.303) "CRM programs must be feasible, requiring a wider understanding of the structural and behavioural limits to organisational alignment".

According to Penrose (1959, p.178), "success is not simply a question of making an accounting profit; to be deemed successful a new activity must turn out to have been a better use of resources of the firm than any alternative use". A successfully CRM project adoption must reach the company's pre-established CRM objectives as well as make better use of the enterprise's resources.

In this project, we present and discuss Critical Success Factors (CSF) of CRM within the three approaches. If we understand CRM as a technological tool, many coincidences with other Information Technologies exist (as ERP, SCM - Supply Chain Management, etc.). Nevertheless, as we extend the view about CRM, the CSF is vaster. In relation to these considerations, the critical factors of success of CRM will be explored with the three different approaches proposed before: philosophical, strategic and technological.

2.4.1 CSF: Technology of CRM

Technology is understood as a facilitator in the process of CRM (Rigby et al., 2002). We agree that large companies can put Relationship Marketing values in practice because information technology enables this. Jayachandran et al. (2005, p.177) argue

that information processes are the key to CRM because they encompass the “specific routines that a firm uses to manage customer information to establish long-term relationships with customers”. Studying capabilities related to information management is relevant, since technical barriers are considered the gap between expectations and results (Payne, 2006). Dhillon (2004) claims that in a good project, IS implementation goes beyond the technical development of the system. According to the author it is important to understand the power in the resources and processes in order to align changes in the structure, systems, people and culture.

Karakostas et al. (2005) argue that CRM systems vary in terms of IT complexity, difficulty in implementation, and the range of customer support. Although organisations know that IT is crucial for CRM strategy, many of them limit their IT area as an operational support and not as a strategic sector of the company. As long as IT has been present in organisations, IT has had different role comprehensions (Dool et al., 2003; Ward and Peppard, 2002). In the 1970s, the focus was on infrastructure (hardware, software, training, and support); in the 1980s, the IT area sought the user’s department satisfaction; in the 1990s, the efforts were focused on identifying best-in-class processes. Nevertheless, at the end of the millennium, firms made heavy investments in people, processes, and technologies. Nowadays, there is a perception of a growing gap between how IT has actually been used and its full or potential use. We can see the changing focus of the IT section: from more operational to more strategic. Ward and Peppard (2002) argue that IS functions and the CIO (Chief Information Officer) must not only keep up with business strategy but are also increasingly expected to perform strategic thinking.

CRM strategy is based on relationship marketing values and a strong IT presence. According to Wehmeyer (2005) the penetration of organisations with IT competence

becomes an imperative. People from this sector need to fulfil their role with ample vision. We believe that a CRM initiative is strongly influenced by the way in which companies understand the role of IT, and the strategic relevance level that the IT area assumes in the company.

Information technology of the CRM management can be adopted progressively, that is, the company should not implement all kinds of IT tools at the same time. It can be a gradual process (Peppers and Rogers, 2004). There are many different technological tools that help CRM strategy. Chalmeta (2006, p.1020) claims that “to achieve real implementation of the CRM strategy, it is important to have the right technology for automating and improving the business process associated with managing the company’s relations with its customers”.

According to Payne (2006), some issues related to information management are to be explored: data repository, selection and combination technology options, analytical tools and IT systems. We agree with Shoemaker (2001) when he claims that the proper use of these tools is crucial for the development of positive loyal customer relationship. In Table 3, a brief vision of an IT CRM solution is shown.

Table 3. CRM tools

Tool	Brief description	Source
Data Mining (DM)	The process of exploration and analysis, by automatic or semiautomatic means, of large quantities of data in order to discover meaningful patterns and rules. These data are extracted from the large reservoir of the data warehouse.	Peppers and Rogers (2004), Zikmund et al. (2003)
	Making use of automated information to discover hidden profiles. It can help organisation (1) to create models of potential customers, (2) to analyse customer loss, and (3) to analyze customer preferences.	Chalmeta (2006, p.1021)

Table 3 (continue).

Tool	Brief description	Source
	DM is an important CRM analytical capability in some industries (e.g. banking and telecommunication). This process seeks to identify patterns and relationships in the data, using selection, exploration and modeling processes.	Buttle (2004, p.93)
Customer Interaction Centre (CIC)	Once lowly call centre, the CIC is now pulling together data from Web and e-mail interactions for a smarter and smarter breed of customer service representatives.	Peppers and Rogers (2004, p.212)
	In addition to call centre tasks such as inbound and outbound selling, appointment setting, lead generation and qualifying, order entry, order management and tracking, problem or incident management and help desk, the CIC's have begun to provide personalized service, call backs, web chat, joint web page browsing and fax service.	Shoemaker (2001)
Online Analytical Processing (OLAP)	Analyzing corporate data to evaluate the performance of the business and support the decision-making process.	Chalmeta (2006, p.1021)
	OLAP tools enable users to analyze data using their own queries.	Peppers and Rogers (2004, p.212)
	OLAP technologies allow information to be transformed into a format that suits analysis and ad hoc inquiry, and stored in a data warehouse.	Buttle (2004, p.91)
Sales Force Automation (SFA)	Connecting the sales force headquarters and to each other through computer portability, contact management, ordering software, and other mechanisms. This application of digital and wireless technologies to personal selling.	Peppers and Rogers (2004, p.34), Zikmund et al. (2003, p.126)
	CRM software also enables sales managers to do pipeline analysis, forecasting, territory alignment and assignment, sales figure reporting, call reporting, account assignment and training functions more quickly and effectively.	Schoemaker (2001)
	SFA was the original form of CRM. It applies technology to the management of a company's selling activities. This software enables companies automatically to record leads and track opportunities.	Buttle (2004, p.7)

Table 3 (continue).

Tool	Brief description	Source
Data Warehouse (DW)	This is a large reservoir of detailed and summary data that describes the firm and its activities, organised by the various business units in a way to facilitate easy retrieval of information that describes the firm's activities.	Zikmund et al. (2003)
	Integration of data relating to customer management.	Chalmeta (2006, p.1021)
	Repositories of large amounts of operational, historical and customer data.	Buttle (2004, p.160)
	Data Warehousing systems together with analytic tools can support a proactive market orientation.	Coltman (2007)
Data Mart	This is a scaled down version of the data warehouse. Technological requirements are less demanding.	Buttle (2004, p.161)
Electronic-CRM (e-CRM)	This business portal makes possible to access to customer-related information in real time and at any time and place through a web service. Company staff and customers can access information about customers, marketing, sales and after-sales.	Chalmeta (2006, p.1021)
	This is important to highlight that the web has some functions that are not sales or marketing related but is fundamental to CRM initiative. Even some company sites may serve other purposes, from altruistic to financial.	Shoemaker (2001)
Technologies for Knowledge Management	Identifying, storing and processing knowledge about customers. Maintaining a record and monitoring customer contacts, redirecting them to the right people.	Chalmeta (2006, p.1021)
Mobile Commerce	Technology to make the exchange of commercial Information easier from anywhere	Chalmeta (2006, p.1021)
Partner Relationship Management (PRM) Software	This allows manufacturers to connect more closely with resellers. The basic functions are: partner profiling, lead distribution and tracking, literature fulfilment, soft dollar accounting and marketing program management.	Shoemaker (2001)
	PRM allows partners to communicate with the supplier through a portal, to manage leads, sales orders, product information and incentives.	Buttle (2004, p.9)
CRM software packages	This includes front office applications that access customer and product data as well as back-end systems including financials, inventory, and ERP.	Campbell (2003, p.375)

Table 3 (continue).

Tool	Brief description	Source
Voice Over Internet Protocol (VoIP)	This technology is anticipated to be the next major enhancement of CRM systems. This is because VoIP allows users to communicate by voice over the internet.	Shoemaker (2001)

The integration or combination of all (or some) of these technological tools enables the organisation to put the CRM strategy in practice. Boulding et al. (2005) observe cases of CRM adoption that use an unsophisticated, simple and straightforward technical approach. One of their conclusions is that “Effective CRM implementation does not necessarily require sophisticated analysis, concepts, or technology” (p.158). This strengthens the idea that the business needs should take precedence over technological capabilities (Rigby and Ledinghan, 2004).

Concerning this issue, Ryals and Knox (2001, p.2) refer to Sun Microsystems’ (a pioneering company in technological CRM solutions) classification of customer information technology. The company identifies three levels: the first level, as the simplest one, reports tools that link sales staff to other elements of the business. The second level deals with Online Analytical Programming (OLAP), which analyses data as it comes in, enabling users to “drill down” through levels of data to examine exceptions of purchase patterns and to understand trends and anomalies. The third level, data mining, is more sophisticated, and enables obscure correlations to be identified.

CRM as a tool is focused on the role of IT being used to gather, analyse and apply data to build and manage relationships with customers. Following, a few critical factors are listed.

Flexibility of software: According to Light (2003), the main limitation of a CRM package software is the tendency to embody standardised views of relationship management processes. If CRM is an organisational initiative that allows companies to

reach a competitive advantage by establishing close relationships with customers, it is crucial to create their own organisational processes. In this sense, CRM software needs to be more flexible, have adequate technical support, and requires the ability to be customised according to the firm's needs (Raman et al., 2006).

Despite some authors' arguments (Rigby and Ledinghan, 2004) that the implementation of CRM processes is becoming more streamlined and the failure rate is decreasing, the standardisation of CRM packages is useless for a company that is looking for a competitive advantage. We consider the software flexibility question a CRM success factor because it allows companies to customise the system in accordance with those processes that involve the relationship with customers.

Adequate training program: Concerning other enterprise systems, the training of users is critical for the success of CRM systems, as Raman et al. (2006) affirm. The adoption of CRM packages is usually followed by strong organisational and procedural changes. Rigby and Ledinghann (2004) state that it is very important to coordinate training programs which cover technological and organisational changes.

Delivery of correct and adequate customer data to an employee and technological tools managing this information: Companies must offer their employees the tools necessary to develop a successful relationship with customers (Rigby et al., 2002). It requires a good technological structure that allows companies to gather and integrate information about customers (Ryals and Knox, 2001). The creation of an integrated knowledge repository across organisational boundaries is considered paramount (Dous et al., 2005; Salomann et al., 2005).

Moreover, managers need to engage in the reengineering of business and sales process before the implementation of CRM packages (Raman et al., 2006). The authors believe that the previous activities will allow for the standardisation of data formats,

fields, and entries. They will also help sales managers to think in a critical way, and to insert business rules into technology, thus automate the flow of sales work. With the previous work ready, it is possible to use dedicated software to analyse the customer information in the real time (Ryals and Knox, 2001).

2.4.2 CSF: Strategy of CRM

Some companies use the CRM approach in a strategic view. They have all taken pragmatic perception, launching highly focused projects that are relatively narrow in their scope. The main intention in this case is to formulate an organisational strategy that will drive functional plans and actions toward building relationships with customers. Referring to this approach, Dous et al. (2005, p.169) agree with Shaw and Reed, who define CRM as “an interactive process that achieves the optimal balance between corporate investments and the satisfaction of customer needs in order to generate the maximum profit”.

CRM is oriented by Relationship Marketing concepts. This is considered a new marketing paradigm that has penetrated the market slowly, and nowadays has emerged as a question to be discussed in many companies (Sheth and Parvatiyar, 2002; Gummesson et al., 1997). The literature (Dwyer et al 1987) discusses the development of a marketing strategy based on the buyer-seller relationship. Relationship Marketing is focused on understood customer behaviour, especially purchase and payment behaviour (Sheth and Parvatiyar, 2002). In order to have good results from Relationship Marketing, it is necessary for a company to establish a long-term relationship, mutual respect, a “win-win” strategy and the idea that a customer is a partner and an esteemed co-producer and not a destination of the supplier’s products (Gummesson, 1998). According to Gummesson (1998), many times, the customer wants to be recognized as a person and not as an anonymous member in an undetermined segmentation.

For companies to obtain this special view of customers, many aspects have to be taken into account, such as the improvement of customer communication, correct customer differentiation, excellent relationship skills and others (Anderson and Narus, 1990; Morgan and Hunt, 1994; Vavra, 1993; Hughes, 2002). Vavra (1993) highlights the importance of understanding real customer needs. When a company is really concerned about this, identifying the kind of relationship customers want to maintain with the company is fundamental.

Customer segmentation and differentiation are important topics in a relationship marketing approach. Crosby (2002) and Peppers and Rogers (2004) argue about the relevance of attributing different degree of importance to each customer. This means extracting and creating different segmentations of customer databases. Johnson and Selnes (2004) propose a theoretical framework in order to focus more on accumulated value creation of a customer portfolio. The authors classify customers as acquaintances, friends, and partners. Although companies in the CRM approach are looking for “partners”, the authors recommend that managers should not stop doing business with customers that are less profitable on an individual basis.

Dowling and Uncles (1997) claim that the loyalty programs launched by companies that are looking to beat competition often do not increase customer value. Many authors (Day, 2000; Gummesson, 1998; Peppers and Rogers, 2004) talk about relationship in connection with marketing values such as commitment, continuing organisational learning, long-term view, and customer value maximisation. A CRM strategy is required to put each one of these values into practice.

In this context an important role is played by employees. We consider people the fundamental mainstay of CRM strategy. Many aspects of the organisational culture that guide the human resources have to be analysed and re-thought, mainly because

relational marketing values in some organisations are in opposition to the current philosophy (Pedron and Bessi, 2007). Boulding et al. (2005) claim that little attention is given to the role of employees in the implementation of effective CRM activities. According to these authors, the academic community has to provide deeper insights into the conditions needed to integrate people successfully into CRM activities.

The process of change in order to adapt a CRM strategy is very common in organisations, mainly for traditional companies that need to change the focus from product to customer. People react in different ways resisting the new ideas and processes resulting from CRM. Zablah et al. (2004) say that this resistance can be expressed through (1) the articulation of strong negative beliefs, (2) the display of strong negative emotion, (3) behavioural opposition, (4) out-right aggression against the innovation or sabotage or (5) apathy (passive resistance). The authors say that the most difficult obstacle to overcome is behavioural resistance because the employees will be unwilling to adopt CRM tools or utilise them properly.

If we consider that CRM adoption sometimes involves re-conception of the organisation's values, beliefs, mission, and objectives, and involves new process as well as the use of new technologies, it is important to consider the learning capacity of all employees.

Some authors are developing reflections that help us to understand new human resource capabilities (Dibb and Meadows, 2004; Chalmeta, 2006; Payne, 2006):

- a) Manage customer's affection and systematise customer data that represents the relationship between enterprise and customers (share this relationship with other employees in the organisation).
- b) Re-think enterprise processes, using (or not) new kinds of information technology to improve the relationship between an enterprise and a customer.
- c) Share some customers' information among different sectors in the organisation.
- d) People from different sectors need to work together (people that use different kinds of jargons and language, different objectives in the organisation,

etc.). Payne (2006, p.593) believes that CRM “requires a reorientation of internal systems and the need for systems to support team working – both internal and in collaborative teams with people in other organisations”.

e) The employees must perceive that their activities influence and are influenced by the activities of their colleagues (in the same or in distinct organisations).

f) The employees should receive the power to make decisions about their daily activities (empowerment). Zuboff cited by Ward and Peppard (2002, p.590) talks about “‘informating’ the workforce, whereby job scope is extended due to the information available to the clerical and professional staff, ‘empowering’ them to make more decisions without the need for functional separation and control of activities”.

g) The staff ought to be able to learn new ways of working with the customer each day (new processes, new information technologies, new products, etc.).

h) The employees need to perceive the whole organisation (and the net that the organisation is included in) (Ford et al., 2003).

i) The company must involve and encourage the training of staff in all kinds of courses and other types of events related to CRM (Chalmeta, 2006).

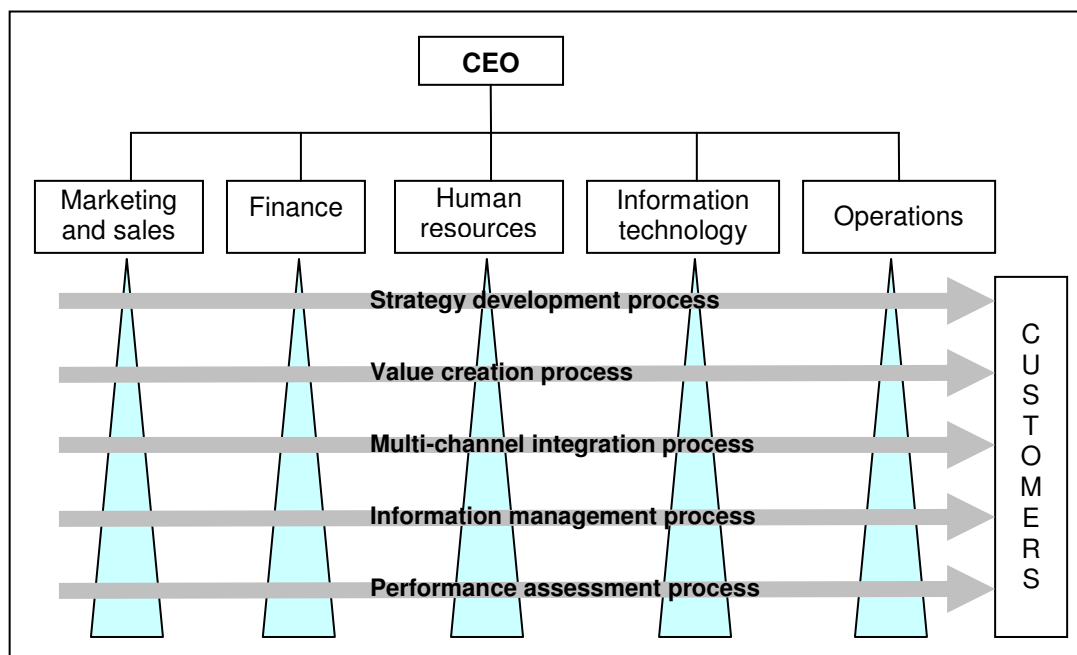
j) Change attitudes, both of management and workers, define new job roles and redesign the company’s organisational diagram. The result should show that each person in the company has his/her function allocated, and knows what he/she has to do and how to do it (Chalmeta, 2006, p.1022).

k) Management and employees must understand and assimilate the strategic business value of the CRM project (Chalmeta, 2006, p.1023).

Another very challenging factor related to people the need for sectors to work together. In order to obtain a unified view of customers, different sectors have to exchange information about all processes and topics that involve customers. Many different authors (Payne, 2006; Peppard, 2000; Chalmeta, 2006) have emphasised internal coordination and collaboration between the company’s sectors. Kale (2004, p.44) says that “CRM mandates a synergic combination of interdepartmentally construed strategies, programs, and processes.”

Payne (2006), in the Figure 3, presents the reality of many organisations.

Figure 3. CRM as a cross-functional activity



Source: Payne (2006, p.30)

We can observe in this figure that the sectors have limited interaction and this result in functional silos. The author indicates that one way for companies to obtain a unified approach on customers is to organise the company in terms of processes rather than functions.

Original concepts about ERP systems help organisations to re-think this structure and arrange themselves by processes. Payne (2006, p.13) defines processes as “essentially any discrete activity, or set of activities, that adds value to an input”. The cross-functional expertise is fundamental in all companies’ interactions with customers.

For the companies that adopt CRM in the strategic approach, some activities like collection of customer data, the interpretation of data analysis and the dissemination of resultant customer information are very relevant. These processes become rather natural and all sectors do these activities (Payne, 2006).

Throughout management history the organisational chart of companies has suggested that the boundaries between the different sectors are rigid. These fixed

barriers resulted in different structures, control systems, symbols, stories, paradigms, etc. in each sector (Payne, 2006). CRM strategy estimates that in order to break these barriers and to be successful, it takes a high degree of synergy and cooperation among the different sectors. Payne (2006) mentions the communication problem between IT managers and their marketing colleagues. Sometimes IT management does not understand how data is used by the marketing department and what their data requirements are. Srivastava et al. (1999) claim that the role of the marketing area has changed: in order to create and captivate customers, it is necessary to know how individual organisational activities can create customer success. The authors argue that marketing managers must analyse and identify how they can contribute to the design, development, execution, and integration of organisational processes.

The following paragraphs discuss some organisational strategic issues that are considered critical factors of CRM success in the literature.

Coherence in organisational lines of direction: The coherence between organisational mission, vision, goals, processes and technology is an important factor that contributes to the success of a CRM initiative. Chalmers (2006) suggests that greater business coherence defines corporate objectives linked to customer satisfaction. If a company is engaged in developing a good relationship with their customers, their focus will be on the “customer”. Everybody in the company needs to know a change in culture which recognises that customers, and not only products, drive profits (Ryals and Knox, 2001).

The step to align business processes must come before the implementation of the technology (Rigby et al., 2002) and the working practices, because it will probably change the organisational structure and the corporate culture (Ryals and Knox, 2001). The company must be prepared to show CRM support teams how to achieve their goals

through new processes (Rigby et al., 2002). The redesigning of processes, which allows companies to integrate customer information into the actual core processes (Dous et al., 2005; Salomann et al., 2005), is considered a CSF for a CRM initiative.

This kind of demand requires an organisational culture that is adaptive and responsive to change, and the quality of communication within an organisation is an important aspect of any initiative change (Ryals and Knox, 2001). Raman et al. (2006) explain that managers need to focus on building a team orientation and bringing various units of the company together. Ryals and Knox (2001) corroborate this idea when reminding as that an integrated approach is required, with marketing, operations, information technology, and financial accounting, all participating.

Strong leadership: Like other organisational initiatives that require high investment, e.g. financial or cultural changes, manager involvement is essential for the success of CRM adoption. The initiative must have the participation of all organisational members, and it is only possible if top management “buys into” to the initiative led (Ryals and Knox, 2001; Rigby and Ledinghan, 2004).

Sometimes executives simply do not understand what they are implementing, do not know how much it costs or how long it will take (Rigby et al., 2002). In these cases, the idea probably comes from the marketing or the IT department, and top management is not convinced of the benefits the company can achieve. According to Bohling et al. (2006), as many CRM projects begin in a single functional area, the scope of CRM tends to be tactical in nature and viewed as an IT tool. Strong executive and business-unit leadership is considered a critical success factor for CRM.

New requirements for employees group: A CRM initiative demands a new set of different activities and skills from the group of employees. Usually, individual employees are the building blocks of customer relationships (Ryals and Knox, 2001).

However with this new approach, customer information needs to be collected, analysed and shared between all employees involved. This strategy requires information sharing among departments, to construct a picture of the firm's total relationship with the customer (Ryals and Knox, 2001).

Beyond this activity, CRM strategy demands employees' increased sensitivity to customer needs and a more proactive sales force (Rigby et al., 2002; Rigby and Ledinghan, 2004). This is considered the biggest change, much more crucial than the use of the software. Employee needs to be sensitive to manage sales and marketing information on customer requirements, expectations and perceptions (Chalmeta, 2006; Rigby et al., 2002).

In order to achieve this level of involvement, employees have to understand where they are going and why (Rigby et al., 2002). Communication between employees of different sectors is considered a key to CRM success (Ryals and Knox, 2001).

Special value of customer life-cycles: A thorough revision of customer relationship cycles is necessary for a CRM initiative (Rigby and Ledinghan, 2004). According to Chalmeta (2006), this involves the reorganisation and computerisation of the business processes around the customer relation life-cycle (sales, marketing, customer care services). Another relevant feature is the segmentation of markets according to customer needs and wants (Ryals and Knox, 2001). This involves the knowledge of how to segment customers, differentiate profitable customers from those who are not, and establish appropriate business plans for each case (Chalmeta, 2006). Therefore, we consider the management of customer relationship cycles, involving the correct and appropriate segmentation of customers a CSF.

Efficiency and efficacy of technology investments: A relevant factor refers to an efficiency and efficacy of all investments in CRM technologies. Rigby and Ledinghan

(2004, p.122) highlight the importance of knowing what kind of information really needs to be delivered to the employees in real time. This is because perfect information comes at a high cost, mainly when it is available on time. The authors say: “The systems required to collect and disseminate it are expensive; so are the finely tuned processes needed to react quickly to it. Despite the hype surrounding real-time enterprise, the fact is that few companies need perfect information throughout their customer relationship cycles”. According to the Raman et al. (2006, p.50) the technology has to support analytics that should provide information to guide strategic decision making, such as identification of profitable customers, and the potential for cross-selling. A rigorous analysis of the data would allow companies to identify new, well-defined opportunities, that is, to extend the power of technology (Rigby and Ledinghan, 2004).

The strategic view of technology: According to Rigby et al. (2002), CRM software is part of the solution, but it does not drive the strategy or the process of customer relationship management. According to these authors and many others, IT is not the focus. In the light of this we consider the way that a company understands the role of IT tools, as a CSF of a CRM initiative. In order to meet customer needs better, it is important to reconstruct organisational processes, job descriptions, and performance programs, that is, to create a customer-focused company (Rigby et al., 2002). According to these authors, installing CRM technology before creating a customer-focused organisation is perhaps the most dangerous pitfall, because some effort is necessary to simplify the customer interface and to improve old processes.

The measurement of CRM strategy: Careful strategy planning includes clear performance measures (Rigby and Ledinghan, 2004), which means considering a CSF in CRM initiatives. Probably a change in business measurement would be an incentive for a new organisational way of doing business, so that it reflects such a new culture

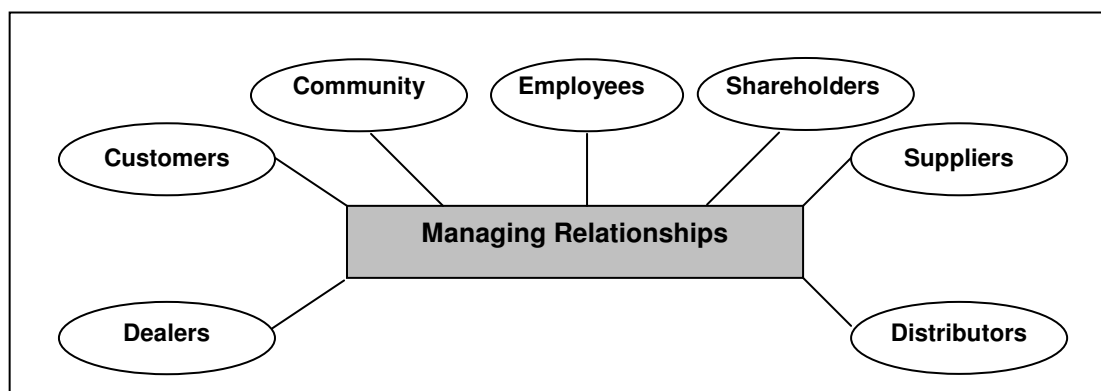
(Ryals and Knox, 2001). Gustafsson et al. (2005) argue that calculative commitment forces managers to think beyond improving satisfaction to consider how to improve their competitive advantage. We consider the new measures of organisational performance and the results that company can calculate from their customer strategy a CSF (Rigby et al., 2002).

2.4.3 CSF: Philosophy of CRM

With a CRM philosophy approach, a broad view about the relationship between the company and its customers is necessary. Companies that work with this approach use CRM to transform their entire business, adopting the customer as the centre of their philosophy (Rigby et al., 2002). As we can observe in Figure 4, companies are concerned about relationships with all kinds of stakeholders.

According to Galbreath (2002), the “relationship area” represents the value of the relationship the company maintains and managers with various stakeholders.

Figure 4. CRM as a series of relationships



Source: Adapted from Ryals and Knox (2001)

In order to understand the essence of CRM, we have to discuss the meaning of the concept of “relationship” (Pedron and Saccol, 2006). We start by analysing the origins of this term. It comes from the latin *relatio*, *relatio* + *onis*, which means carrying back,

bringing back, also with the meaning of repetition and reference, resemblance, repayment (Oxford, 2000; Randon-Webster, 1999; Handy, 1972). Relation has the meaning of dependence between two things, liaison, friendship, to know each other, intimacy, reciprocity, mutual political-, commercial-and cultural interests.

By analysing these different meanings of the term, we can conclude that a relationship implies commitment, duties, mutual understanding and goals. Johnson and Selnes (2004) claim that, in order to create economic value, customers and suppliers collaborate, share information, socialise, integrate or link activities, and even commit future resources to the relationship. In this line of thought, Ford et al. (2003, p.37) claim that a company's relationship with its customers, suppliers and others is an asset for the company but it is also a burden for it to carry. Exploring the literature, we can identify a series of conditions and implications that a relationship demands. These factors can be understood as a CSF of CRM in the philosophical approach.

Mutual knowledge: First of all, a relationship implies mutuality. The relationship depends on the ability to motivate of both the customer and the supplier to participate (Johnson and Selnes, 2004). Both sides must understand the importance of the relationship and be willing to participate. In order for any "state of affairs" to be considered a relationship, both parties have to participate in and be aware of the existence of the relationship. This means it must be inherently a two-way relation in nature. For instance, a customer can feel a great deal of affection for a brand all by herself, but a relationship between the customer and the brand can only be said to exist if the brand is also aware of the individual customer's existence (Peppers and Rogers, 2004, p.36).

Long term orientation: As the very origin of the term relationship indicates, it must have a long-term orientation, with the idea of repetition. It demands that, sometimes,

one of the sides has to give up some current interests to sustain the long-term relationship as a whole.

Communication: Ford et al. (2003) emphasise the importance of two-way communication that “enables the parties to become aware of each other and learn (and teach) each other about what they stand for, what they expect from the relationship and what they can offer” (p.39). Communication is interpersonal and dependent upon a social context.

Mutual benefits and satisfaction: Another characteristic of a relationship is that satisfied customers are generally more inclined to remain in the relationship. Johnson and Selnes (2004) claim that the value created in a relationship is a direct function of both the customer’s and the supplier’s capabilities and strategies. While it is accepted that there exists a positive relationship between customer satisfaction and customer loyalty, the relationship between customer satisfaction and the duration of the relationship is more complex (Britton and Rose 2004, p.46). According to O’Malley and Mitussis (2002), the idea that both parties can derive value from a relationship demands consideration of the motivations, expectations, costs and rewards involved for both organisations and customers in a relationship.

Mutual trust and fairness: While relationship quality is a somewhat subjective term, it is plausible to measure relationship quality based on the levels of trust, commitment, and ability to resolve conflicts effectively. It is important to highlight that relationship means a social mechanism for creating economic value, and both sides (customer or supplier) can dissolve this link (Johnson and Selnes, 2004). Trust exists when one party is secure in the responsibility and integrity of the other party which favours continuing the relationship (Morgan and Hunt, 1994). The higher the levels of these contributors, the greater the quality of the relationship: “(...) Trust is defined as one party’s

confidence in the other relationship member's reliability, durability, and integrity, and the belief that its actions are in the best interest of and will produce positive outcomes for the trusting party" (Britton and Rose, 2004, p.43).

Mutual learning: In order for a company to develop a relationship with a customer, the learning relationship process is very relevant. The opposite is also true: the customer has to be involved in learning the way the company works and understands, its products, contact channels, etc. The relationship learning is considered an important avenue for the creation of differential relationship and can help a company to develop a competitive advantage (Johnson and Selnes, 2004).

Mutual commitment and efforts from both parts: In order to develop an efficient relationship, both sides have to commit themselves and invest efforts, such as "time spent developing contacts with the counterpart, or developing the offering or introducing different equipment or working practices" (Ford et al., 2003, p.40). Johnson and Selnes (2004) claim that in order to extend the time perspective of a relationship, commitment is a necessary condition. The commitment between both parts of relationship represents a long term orientation, confirmed in the desire to maintain the relationship, which achieves a mature relationship level (Morgan and Hunt, 1994).

Uniqueness: According to Ford et al. (2003, p.38), "there is no such thing as a 'standard relationship'"; each relationship is unique in its content, its dynamics, how it evolves, how it affects the parties involved, and what it requires for each of them to succeed. Anderson and Jap (2005) say that at times is necessary to make unique adaptations or investments to support a relationship.

Freedom: Ford et al. (2003, p.59) remind us that all relationships are unruly: developing a relationship with someone means giving up some freedom. So unruliness

is a very basic aspect of any relationship, because it can never be fully controlled by one party.

Uncertainty: Since relationships have a time dimension, they have a future that is uncertain and a history whose interpretation is both subjective and can be changed (Ford et al., 2003). The relationship is based on qualitative elements such as satisfaction, trust, and commitment, which may be found in an acquaintance, friend, and partner relationship (Johnson and Selnes, 2004, p.4). Their development depends on how the parties involved view each other's capabilities and motives, and how they interpret their own actions and those of others. The interpretation can change over time with a new experience.

We could analyse each of these relationship characteristics one by one, and for each one of them we could find many obstacles and challenges.

2.5 Summary

We present a CSF framework for CRM, which summarises the whole discussion. The following table includes the factors considered critical for the success of CRM adoption projects according to each CRM approach (technological, strategic and philosophical). These factors are briefly described in the table their authors referred. This table enabled the construction of a data collection guide, which is presented in Appendix A. The next chapter will introduce a discussion related to the main theoretical approach used to analyse CRM adoption.

Table 4. A summary of CRM Critical Success Factors

Approach	CSF	Description	Authors
Technology of CRM	Flexibility of software	Software requires an elevated level of flexibility, with adequate technical support, and ought to have the ability to be customized according to the firm's needs. CRM software solution needs to allow the evolution of the relationship between company and customer.	Light (2003), Rigby and Ledinghan (2004), Raman et al. (2006)
	IT investment plan	Companies should not implement all kinds of IT tools at the same time, instead they should adopt a progressive policy of IT investment.	Child et al. (1995), Goodhue et al. (2002), Peppers and Rogers (2004), Rigby and Ledingham (2004), Chalmeta (2006)
	Training program	Training programs which cover technological and organisational changes.	Rigby and Ledinghann (2004), Starkey and Woodcock (2002), Sin et al. (2005), Raman et al. (2006)
	Conditional tools for employees	Technological conditions, with the necessary customer information, in time to develop a frugal relationship with them.	Ryals and Knox, (2001), Rigby et al. (2002).
	Information system integration	The integration of different information systems and knowledge repositories across organisational boundaries allow the reliability of customer data.	Peppard (2000), Goodhue et al. (2002), Adebajo (2003), Bygstad (2003), Gurau et al. (2003), Chen and Chen (2004), Karakostas et al. (2005), Salomann et al. (2005), Payne and Frow (2006).

Table 4 (continue).

Approach	CSF	Description		Authors
	Technological structure composition	Technological structure must be guided by a strategic approach and aligned according to the customer relationship necessities. It requires an adequate infrastructure (net, database, server, etc.).		Goodhue et al. (2002), Croteau and Li (2003), Bull (2003), Chen and Ching (2004), Rigby and Ledinghann (2004), Boulding et al. (2005)
Strategy of CRM	Coherence in the organisational lines of direction	Alignment among organisational mission, vision, goals and technology	Clear business objectives definition and alignment among organisational mission, vision, goals, technology and CRM concepts.	Massey et al. (2001), Ryals and Knox (2001), Rigby et al. (2002), Adebajo (2003), Bygstad (2003), Chen and Chen (2004), Wehmeyer (2005), Chalmeta (2006)
		Redesigning of business processes	It allows companies to integrate customer knowledge into the actual core processes. The previous activities will allow the standardization of data formats, fields, and entries. It will also help sales managers to think in a critical way, and to insert business rules into technology, thus automise the flow of sales work.	Ryals and Knox (2001), Rigby et al. (2002), Bull (2003), Day (2003), Gurau et al. (2003), Rigby and Ledinghan (2004), Dous et al. (2005), Sin et al. (2005), Payne and Frow (2006), Raman et al. (2006), Salomann et al. (2005)
		Aligning business processes	The step of aligning business processes is a factor that must come before the implementation of the technology.	Ryals and Knox (2001), Rigby et al. (2002).

Table 4 (continue).

Approach	CSF	Description		Authors
Strategy of CRM	Coherence in the organisational lines of direction	Changing Culture	CRM initiative requires an organisational culture that is adaptive and responsive to change.	Ryals and Knox (2001), Rigby et al. (2002), Starkey and Woodcock (2002), Day (2003), Agarwal et al. (2004), Chen and Chen (2004), Rigby and Ledinghan (2004), Karakostas et al. (2005), Sin et al. (2005).
		Integrated sectors approach	Building a team orientation and bringing various units of the company together (marketing, operations, information technology, and financial accounting)	Meyer and Kolbe (2005), Raman et al. (2006)
	Strong leadership	Top management commitment in change management	CRM initiative must have the participation of all organisational members, and it is only possible, if top management “buys into” the lead initiative. This factor reflects top management’s involvement in a successful of CRM initiative.	Ryals and Knox (2001), Winer (2001), Starkey and Woodcock (2002), Rigby et al. (2002), Croteau and Li (2003), Bygstad (2003), Chen and Popovich (2003), Agarwal et al. (2004), Rigby and Ledinghan (2004)
		Effective leadership	The effective leadership which has the power to put in practice changes and stemming from CRM initiatives.	Massey et al. (2001), Starkey and Woodcock (2002); Bull (2003); Chen and Chen (2004); Rigby and Ledinghan (2004)
New requirements for employees	Empowerment	The power of making decisions is transferred to employees for their daily activities.	Zuboff cited by Ward and Peppard (2002); Galbreath (2002)	

Table 4 (continue).

Approach	CSF	Description	Authors	
		Learning each day	Employee's capacity to be able to learn new ways of working with the customer every day.	Galbreath (2002), Mithas et al. (2005), Chalmeta (2006)
		Systemizing customer data	Management of customer's affection and systemising of customer data (use of IT to manage this relationship)	Dibb and Meadows (2004), Payne (2004), Chalmeta (2006)
		Integrated view of customer	Information is shared between departments to construct a picture of the firm's total relationship with the customer.	Ryals and Knox (2001)
		Proactive sales	Employees' increased sensitivity to customer needs and a more proactive sales force.	Rigby et al. (2002), Rigby and Ledinghan (2004), Chalmeta (2006).
		Role-awareness	The group of employees has to understand where they are going and why. Employees must perceive that their activities influence and are being influenced by the activities of their colleagues.	Rigby et al. (2002), Dibb and Meadows (2004), Chalmeta (2006); Payne (2004), Payne and Frow (2006)
		Internal communication	This is related to the communication between employees of different sectors that share customer information.	Ryals and Knox (2001), Chen and Popovich (2003), Payne (2006)

Table 4 (continue).

Approach	CSF	Description		Authors
	Customer life-cycles	Communication	Different structures of channel participants are common because companies offer clients different ways of communication.	Payne (2006)
Strategy of CRM	Customer life-cycles	Revision of the customer relationship cycles	The reorganisation and computerisation of business processes as surrounding the customer relationship cycle.	Galbreath (2002), Rigby and Ledinghan (2004), Mithas et al. (2005), Chalmeta (2006)
		Correct and appropriate segmentation of customers	The segmentation of markets according to customers' needs and wants / Identification of what kind of relationship customers want.	Ryals and Knox (2001), Gurau et al. (2003), Chalmeta (2006)
	Efficiency and efficacy of technology investments	Knowing what kind of information is really needed to be delivered to an employee in a real time. Technology has to support the analysis to provide information which can guide strategic decision making, such as identification of profitable customers, and potential for cross-selling.		Rigby and Ledinghan (2004), Raman et al. (2006)
	The strategic view of technology	The way that a company understands the role of technological tools.		Rigby et al. (2002)
	The measurement of CRM strategy	Clear performance measures need to be established.		Rigby et al. (2002), Rigby and Ledinghan (2004), Gustafsson et al. (2005), Karakostas et al. (2005)
Philosophy of CRM	Mutual knowledge	Both parties have to participate in and be aware of the existence of the relationship.		Galbreath (2002), Peppers and Rogers (2004)
	Long term orientation	It has to have a long term orientation, with the idea of repetition.		Galbreath (2002), Peppers and Rogers (2004)

Table 4 (continue).

Approach	CSF	Description	Authors
	Communication	Emphasises the importance of a two-way communication that enables the parties to become aware of each other and learn (and teach) each other about what they stand for.	Ford et al. (2003)
	Mutual benefits and satisfaction	The idea that both parties can derive value from a relationship demands to consider the motivations, expectations, costs and rewards involved for both organisations and customers in a relationship.	O'Malley and Mitussis (2002), Britton and Rose (2004), Mithas et al. (2005), Sin et al. (2005)
	Mutual trust and fairness	The higher the levels of trust, commitment, and ability to resolve conflicts effectively, the greater the quality of the relationship	Galbreath (2002), Britton and Rose (2004), Sin et al. (2005)
	Mutual learning	The willingness to teach and be taught is a crucial factor in the learning relationship process.	Galbreath (2002), Peppers and Rogers (2004)
	Mutual commitment/efforts from both parts	To develop an efficient relationship, both sides have to commit themselves and invest efforts.	Ford et al. (2003)
	Uniqueness	A relationship is unique in its content, its dynamics, how it evolves, how it affects the parties involved, and what it requires for each of them to succeed.	Ford et al. (2003), Anderson and Jap (2005)
	Freedom	Unruliness is a very basic aspect of any relationship, because it can never be fully controlled by one party.	Ford et al. (2003)

CHAPTER III

Dynamic Capability Approach: a view about CRM

3.1 Introduction

The previous chapter defined critical success factors that a company should meet in order to attain its CRM objectives. This chapter presents and discusses the adequacy of Dynamic Capability theory for CRM analysis. We discuss how companies have developed their capabilities by rearranging their resources and developing competences that support the relationship established with a customer, in order to obtain competitive advantage.

The concept of Dynamic Capabilities has received rapid recognition as a potential source of achieving and sustaining competitive advantage in organisations (Zahra et al., 2006; Eisenhardt and Martin, 2000; Teece et al., 1997). Barney (1991, p.102) notes that an organisation is said to “have a competitive advantage when it implements a value creating strategy not simultaneously being implemented by any current or potential competitors”. In relation to CRM, according to Payne (2006), the notion of competitive advantage corresponds to the creation of value for the customer and for the company, which is considered the key to the success of any relationship. Porter (1998) highlights the importance of the company’s creation of activities that can be considered compatible. According to the author, the company’s success depends on the development of a strategic set of company activities and their integration. Following this stream of thoughts, we should analyse the activities together, since an isolated organisation activity is bound to fail.

In order to appropriate these concepts to discuss CRM initiatives, first we formalise our understanding about resources, competences and capabilities. We present an

overview related to a Resource Based View (RBV) and Dynamic Capability. Afterwards, we present some arguments to justify a dynamic capability as a relevant approach in CRM initiative observation.

3.2 From the Resource Based View to Dynamic Capability

A few years ago, the resource-based perspective - emphasising firm-specific capabilities and assets and the existence of isolating mechanisms as the fundamental determinants of firm performance - was a theory that explained the main sources competitive advantage in enterprises (Teece et al., 1997). The “Competence-Based Perspective” is another theoretical approach that emerged in the early 90s (Prahalad and Hamel, 1990). This approach stresses the development of the right competences for the long-term success of a firm. Core competences are embedded in business activities, and they are considered a result of collective learning processes (Hafeez et al., 2002). Hamel and Prahalad (1995) claim that core competences offer benefits to customers because they can add value to a product or service. Finally, the “Dynamic Capabilities” approach claims that in order to have a competitive advantage, the company needs to develop a strategic positioning of its assets and available paths. Teece et al. (1997) refer to the term “dynamic” as the capacity to renew competence in order to achieve congruence with the changing business environment. This strategic competitive approach aligns itself with the new and globalised environment due to its internal and external cooperation in order to acquire or develop these capabilities (Hafeez et al., 2002).

According to Grant (1991, p.129), resources and capabilities are “those which are durable, difficult to identify and understand, imperfectly transferable, not easily replicated, and in which the firm possesses clear ownership and control”. This continues

to be perceived as a true concept. Nevertheless, we need to consider the new environment, and attempt to find the answers about how the companies can build a competitive advantage in regimes of rapid change.

New factors are considered relevant to the sustainability of a competitive advantage, such as the complexity of the environment and the necessity of fast learning capacity (Grant, 1991). In this scenario, CRM has been adopted as a response to a fast-moving environment by companies that seek to gain a competitive advantage. In a market where customers are increasingly demanding and competitors are continually more aggressive to increase their market share, companies need to activate the process of dynamic resource reconfiguration to sustain their competitive advantage. Therefore, CRM appears to be a good strategy in answer to this market and could provide a sustainable advantage for the firm in face of a competitive reaction. In order to do so CRM initiatives need to be considered a dynamic and continuing process.

This section opens with a discussion related to the basic concepts used in strategic theories: resources, competences and capabilities. Afterwards, both strategic approaches (Resource Based View and Dynamic Capability) are discussed.

3.2.1 Resource, Competence, and Capability Concepts

The concepts of resource, competence, and capability have been widely discussed in the management literature, where several definitions can be found (Barney, 1991; Amit and Schoemaker, 1993; Hamel and Prahalad, 1995; Peppard and Ward, 2004).

Teece et al. (1997, p.516) define resources as “firm-specific assets that are difficult if not impossible to imitate”. As the assets may contain tacit knowledge, they are difficult to transfer among firms, but not impossible. It is important to observe that researchers have used a variety of different terms to refer to a firm’s resources,

including skills (Grant, 1991), strategic assets (Amit and Schoemaker, 1993), assets, and stocks (Capron and Hulland, 1999). The adoption of different definitions represents a challenge for RBV researches.

Amit and Schoemaker (1993) state that resources are “stocks of available factors that are owned by the firm”. As Grant (1991) claims, there are six major resources: (1) financial resources, (2) physical resources, (3) human resources, (4) technological resources, (5) reputation, and (6) organisational resources. Some intangible resources such as the organisation’s style, values, traditions, and leadership could be considered glue between resources and capabilities, since they are critical for organisational teams’ cooperation being achieved (Grant, 1991).

Raman et al. (2006) consider that a successfully implemented CRM stems from the combination of (1) physical resources, such as computers and technological infrastructure, (2) informational resources, i.e. customer databases, salespeople’s call records, customer service interactions and other, and (3) organisational resources, e.g. customer-oriented culture, and information-sharing routines. Related to organisational resources Pike et al. (2005) highlight intangible resources, which are formed by an individual’s experience, organisational routines, and all kinds of resources that contribute to the formation of a customer’s idea related to the company’s reputation.

As Grant (2002, p.139) states, “the basic units of analysis are the individual resources of the firm: capital equipment, human resources, intellectual capital, and so on. But, in most instances, these resources do not create value for the firm on their own”. The author claims that in order to establish a competitive advantage, a firm’s resources must work together for a creation of organisational capability.

Pike et al. (2005, p.113) proposes a classification of resource categories, which we adopt in our research (see Table 5).

Table 5. A resource categories classification

Resource group	Scope	Ownership	Control	Eg.
Human	Resources which are intrinsic to people such as their creativity, behaviour, education and ability.	By employees	By company	-R&D capabilities - commercial alignment - management capabilities - partnering capabilities - learning
Organisational	Resources which the company has developed such as brand, image, IP, know-how, culture, system & strategy.	By company	By company	- intellectual property - organisational culture - processes - organisational structure - organisational strategy - brand and image
Relational	External resources which the company needs or which affect the company such as the suppliers, customers, regulators and partners.	By the other party	By the other party	- regulators - customers - strategy alliances - market makers - influencers - local community
Physical	The company's land, buildings, IT, equipment, materials and products.	By company	By company	- facilities - stored products & materials - service infrastructure
Monetary	The company's cash or other financial assets which are equivalent to or can be converted to cash.	By company	By company	- budget

Source: Pike et al. (2005, p.113)

According to Penrose (1959), all these different resources (Table 5) do not create value. The author claims that it is only the services that the resources can render that create value. In this sense, resources are not mere static assets, but they dynamically interact with each other to create value (Teece et al. 1997).

The literature reveals different concepts related to “competences”. According to Ward and Peppard (2002), either by incremental, continuous or radical change, organisations try to establish a set of competences that may deliver future success.

Competence is defined as “the ability to develop, manage and deploy resources in support of a capability or capabilities” (Lambert and Bytheway, 1998, p. 3). McGrath et al. (1995, p.251) define competence, in operational terms, as “the degree to which the firm or its subunits can reliably meet or exceed objectives”. In this sense, the authors believe that the convergence between objectives and results is a necessary requirement for competence. On the other hand, Day (1994, p.38) refers to ‘competence’ and ‘capability’ interchangeably, meaning the “complex bundles of skills and accumulated knowledge, exercised through organisational processes that enable firms to coordinate activities and make use of their assets”.

“(…) the ways the organisation does things uniquely or exceptionally well - its abilities or competences - may lead to defining more appropriate ends or the procurement and development of improved, more valuable resources.” (Ward and Peppard, 2002, p. 111)

A competitive advantage exists if a company can develop a fundamental competence, which Prahalad and Hamel (1990) call “core competence”. According to these authors (1995), three criteria must be respected for a competence to be considered core: it must offer real customer benefits, be difficult to imitate, and allow access to different markets. If a company does not focus on obtaining some of these competences, it can lose competitiveness. Some risks associated with ignoring core competence are: (1) the lack of the perception of new opportunities, (2) no transformation of tacit knowledge into explicit knowledge, (3) sharing competences among business units, (4) no investment in a core competence, and (5) lack of perception of these competences being developed by competitors.

According to McGrath et al. (1995) the competence concept emerges from an understanding of business processes and individual skills. They argue that the achievement of comprehension and the achievement of group deftness are two fundamental processes that precede the establishment of a competence. In this context,

comprehension affects deftness, while deftness affects competence in an on-going process. This on-going process involves a new conceptual element: organisational capability, which is introduced below.

Day (1994, p.38) argues that capabilities are “complex bundles of skills and accumulated knowledge, exercised through firm processes that enable firms to coordinate activities and make use of their assets”. Capabilities are related to a complex pattern of coordination between people and other resources. Capability is defined as “the ability of an organisation to deliver a product or service into the market place” (Lambert and Bytheway, 1998, p.3). As Grant (1991, p.122) says, we can compare capabilities with routine, or “a number of interacting routines”. Finally, according to Dutta et al. (2005, p.279) capability is the opposite of inefficiency, in other words, “the greater the inefficiency the lower is the capability”.

The organisational ability to manage the relationship among different capabilities (such as IT business experience, relationship infrastructure, IT infrastructure, and intensity of organisational learning) could offer a competitive advantage to a company (Bhatt and Grover, 2005).

While resources are “not very productive on their own” (Grant, 2002, p.144), capabilities use organisational processes to deploy resources (Makadok, 2001). Such processes can be tangible or intangible, and they are firm-specific because they have been developed over time through complex interactions.

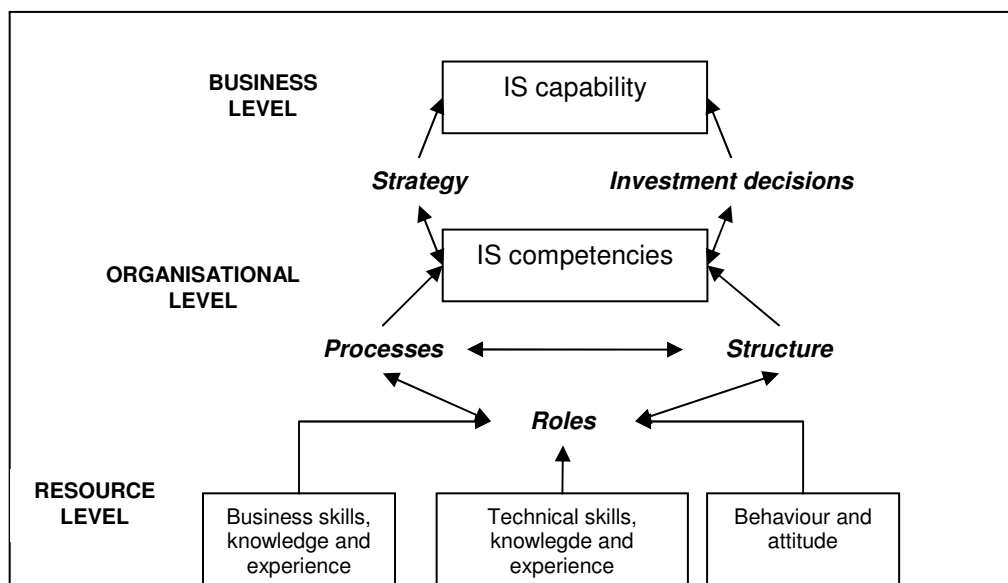
Makadok (2001) says that a ‘capability’ is a special type of resource – specifically, an organisationally embedded, non-transferable, firm-specific, resource whose purpose is to improve the productivity of the other resources possessed by the firm. Similarly, Teece et al. (1997) claim that capabilities cannot be simply bought - they must be built, since they require “the expertise of various individuals to be integrated with capital

equipment, technology, and other resources” (Grant, 2002, p.148). We agree with Grant when he says that capabilities can only be integrated through the knowledge of individuals. This idea explains why higher-level capabilities are so difficult to perform.

Makadok (2001) basically defines two key features that distinguish a capability from a resource: (1) A capability is firm-specific due to its embeddedness in the organisation and its processes, while an ordinary resource is not. Therefore, a capability cannot be easily transferred from one organisation to another without transferring ownership of the organisation itself, or some reasonably self-contained subunit of the organisation. (2) The primary purpose of a capability is to enhance the productivity of the other resources possessed by the firm.

All the concepts discussed in this section must be combined in order to analyse CRM adoption. We followed the framework proposed by Caldeira and Ward (2003) in order to observe that CRM competences are embedded in organisational processes and business routines.

Figure 5. From resource to capabilities



Source: Adapted from Caldeira and Ward (2003)

Caldeira and Ward (2003) argue that IS resources are combined (through structures, processes and roles) at the organisation level to develop IS competences, and IS competences can create an IS capability at the enterprise level. According to Peppard and Ward (2004), competences reflect “a bundle of skills and technologies rather than a single, discrete skill or technology”, while capabilities are “the strategic application of competences”. Therefore, IS competences contribute to the achievement of an IS capability.

According to Bharadwaj (2000, p.186), the lack of relationship between IT investments and firm performance may be due to an incomplete understanding of the nature of a firm’s IT resources and skills. An enterprise may invest heavily in IT yet not be successful in creating an effective IS capability. Ravichandran and Lertwongsatien (2005) argue that enterprises will perform better if their IS capabilities support the enterprise’s core competencies. Their research model has four major components: IT resources, IS capabilities, IT support for core competences, and firm performance. The results from their empirical research support the argument that IT functional capabilities will contribute to a firm’s ability to improve its core competences.

Despite considering this framework appropriate to understand CRM capabilities, competences, and resources, we are not only interested in Information System strategic elements, as were Caldeira and Ward (2003). In our view, CRM is an organisational business approach that covers a technologic view, a strategic view and also a philosophic view. In order to work with such a broad view of CRM, we consider “people” as a particular and important component. People can apply “their knowledge, integrating their knowledge, interacting with others and coordinating their actions – this they do by performing roles in processes” (Ward and Peppard, 2002, p.609).

We consider “Human Resources” a foundation of CRM. Many aspects of the organisational culture guiding human resources have to be analysed and re-thought, mainly because in some organisations relational marketing values do not run in alignment with the current “philosophy” of the firm. Boulding et al. (2005) claim that little attention is given to the role of employees in the implementation of effective CRM activities. According to these authors, the academic community has to provide deeper insights into the conditions needed to integrate people into CRM activities successfully.

As Sandberg and Targama (2007) indicate, the new competitive environment calls for alternative ways of managing people that permit greater flexibility and speed in product development and production processes. When employees have independence and extended autonomy in performing their tasks, companies are in a better position to offer a good relationship with customers.

Zablah et al. (2004) emphasise an important feature that involves employees. There is an employee-process gap represented by the discrepancies between (1) how employees believe processes should be defined and how they perceive them to be defined, and (2) the competence employees believe is needed to execute business processes and the competence they perceive they have. Moreover, it is important to highlight that people can have a different understanding of the same task. The relationship with a customer requires a set of tasks developed by employees. We consider it crucial for companies to develop a broad view of individual competence needed in a relationship with customers.

Sandberg and Targama (2007) claim that the only way to obtain a good work performance in organisations is to understand how employees perceive their own and their company’s task forms. The authors suggest that an interpretative management

perspective can help managers to develop practical ways of managing understanding, which can enhance work performance in organisations.

In the next section, we explore the Resource Based Theory (or Resource Based View – RBV) in more detail in order to amplify our bases to understand Dynamic Capability theory.

3.2.2 Resource Based View

RBV is a theory that encourages a dialogue between scholars from a variety of perspectives, and it is used for different research areas (Wade and Hulland, 2004). According to Hoskisson et al. (1999), RBV was recognised with a seminal paper of Wernerfelt (1984), which was selected as the best paper of 1994 published in the Strategic Management Journal. This theory is underpinned by the work of Penrose (1959), who provides links among resources, capabilities, and competitive advantage. According to Kor and Mahoney (2004), the literature proposed by authors such as Teece (1982) and Wernerfelt (1984) has made insightful connections between Penrosean ideas and the modern resource-based view.

The fundamental question that RBV addresses is “Why are firms different and how do firms achieve and sustain competitive advantage?” (Hoskisson et al., 1999, p.437). The RBV is a management strategic theory which also claims that companies compete on the basis of “unique” organisational resources that are valuable (in the sense that they exploit opportunities and neutralise threats in a firm’s environment), rare (among a firm’s current and potential competition), difficult to imitate, and non-substitutable by other resources (Barney, 1991). The author claims that these attributes of a company’s resource signify an indicator of how heterogeneous and immobile a firm’s resources are and, thus, how useful these resources are for generating sustained competitive

advantages. Therefore, we assume that according to the RBV, sustainable competitive advantage results from resources that are inimitable, tacit in nature, and synergistic (Wernerfelt, 1984; Barney, 1991; Teece et al., 1997).

The RBV is based on two main ideas (Wernerfelt, 1984): the resources and capabilities are heterogeneous among competing firms and these resources are immobile. These conditions of resource heterogeneity and resource immobility are connected to sustained competitive advantage (Mata et al., 1995). The RBV concentrates on the internal resources and perceives firms as heterogeneous entities characterised by their unique resource bases with distinctive competencies (Pike et al., 2005).

The seminal paper written by Barney (1991) was criticised by Priem and Butler (2001). Their main arguments were as follows: (1) Barney's (1991) paper was tautological, (2) as many different resource configurations could generate the same value for firms, thus would not be a source of competitive advantage, (3) the role of product markets is underdeveloped in the argument, and (4) the developed theory has limited prescriptive implications. Barney (2001) responded to these critical arguments and fortified RBV theory.

Barney (1991) suggests three broad categories related to RBV arguments: (1) The role of history: history increases the cost of imitating a successful firm's resources and capabilities. Some IT firms' attributes can only be developed over long periods of time. (2) Causal ambiguity: this is defined as "ambiguity concerning the nature of the causal connections between actions and results" (Mata et al., 1995, p. 493).

There are at least two reasons why there is causal ambiguity about the resources of a firm's sustained competitive advantage. First, there are "invisible assets" (such as culture or operational routines) that are considered tacit attributes for a firm. Second, the

competitive advantage of a firm depends on a set of small decisions and actions. (3) Social complexity: resource and capabilities that are socially complex are also costly to imitate (e.g., the company's reputation among customers and suppliers).

According to Bharadwaj (2001, p.171) various studies adopting a resource-based perspective identify IT related resources that serve as potential sources of competitive advantage. The author extends the traditional notion of organisational capabilities to a firm's IT function, "a firm's IT capability is defined as the ability to mobilise and deploy IT-based resources in combination or copresent with other resources and capabilities".

Bharadwaj (2001) uses the Grant's classification scheme for classifying IT-based resources: tangible resource comprising the physical IT infrastructure components, the human IT resources related to the technical and managerial IT skills, and the intangible IT-enabled resources such as knowledge assets, customer orientation, and synergy. Bharadwaj (2001, p.176) claims that successful firms employ their "technology base and human IT skills for developing IT-enabled intangibles such as customer orientation, synergy, and superior organisation knowledge".

Coltman (2007) applied RBV lense in order to observe why companies must build a customer relationship management capability. The author argues that "RBV provides a suitable multidimensional perspective to the application of CRM because it attempts to link superior firm performance to the various resources and capabilities possessed by firms" (p.302).

The following table shows some research that uses RBV a lense for theoretical observation.

Table 6. Literature on RBV

Reference	Research objective	Method	Main contributions
Grant (1991)	To discuss and elaborate theory related to RBV and the company strategy formulation.	Theoretical	- The key to a resource-based approach for strategy formulation is understanding the relationships between resources, capabilities, competitive advantage, and profitability - in particular, an understanding of the mechanisms through which competitive advantage can be sustained over time (p.133).
Barney (1991)	To examine the link between a firm's resources and sustained competitive advantage.	Theoretical	- The author proposed a framework that helps with the analysis of strategic planning, information processing, and a firm's reputation among customers and suppliers, and sustained competitive advantage.
Mata et al. (1995)	To discuss the resource-based theory as a means of analysing sustainability and develop a model founded on this resource-based view of the firm.	Theoretical	- Only IT managerial skills are likely to be a source of sustained competitive advantage. - IT skills reflect the unique histories of individual firms, are often part of the "taken for granted" routines in an organisation, and can be based on socially complex relations with the IT function (with other business functions in a firm, and with firm's suppliers or customers). - The RBV suggests that the search for IT-based sources of sustained competitive advantage must focus less on IT, per se, and more on the process of organising and managing IT within a firm.
Peppard et al. (2000)	To identify and describe the information competences that are necessary to create value.	Multimethod (including focus group and case study)	- Creating value from information is an organisational wide issue and not a responsibility that can be assigned solely to the IS function. Information competences span across the organisation and transcend functional boundaries.

Table 6 (continue).

Reference	Research objective	Method	Main contributions
Guillén (2000)	To conceptualise a RBV of business groups in emerging economies and to test empirically whether it surmounts the shortcomings of existing explanations.	Multimethod	<ul style="list-style-type: none"> - Offers a framework for thinking about the new political-economic realities of the turn of the century and the resources and capabilities that facilitate diversification.
Bharadwaj (2001)	To employ the resource-based view to develop the theoretical links and empirically examine the association between IT capability and business performance.	Matched sample comparison group - to compare the levels of interest variables across two samples.	<ul style="list-style-type: none"> - The firm's IT, logistics, and distribution systems, combined with a strong customer orientation, create a set of complementary resources that are not easily matched by rival firms. - A firm's IT capability derives from its underlying strengths in IT infrastructure, human IT resources, and IT-enabled intangibles. - Firms should do much more than merely invest in IT. They should identify ways to create a firm-wide IT capability.
Caldeira and Ward (2003)	To consider how resource-based theory can be used to explain success with the adoption and use of information systems and information technology in manufacturing small and medium-sized enterprises.	Case study	<ul style="list-style-type: none"> - The management perspectives and attitudes towards IS/IT adoption and use, and the development of internal IS/IT competences are the main factors to explain the success of IS/IT adoption in a company. - Based on the case study evidence, it is possible to explain how the determining factors in combination cause the requisite skill sets to be developed. These in turn lead to the development of appropriate organisational competences and processes, which enable effective adoption of technology and its successful exploitation in use (p.139).
Wade and Hulland (2004)	To explore and critically evaluate use of the resource-based view of the firm by IS researchers.	Theoretical	<ul style="list-style-type: none"> - The RBV is a useful tool for researchers to understand if, and how, particular parts of the firm affect the firm at large. The authors suggested the RBV provides a way for IS research to understand the role of information system within the firm.

Table 6 (continue).

Reference	Research objective	Method	Main contributions
Ravichandran and Lertwongsatien (2005)	To examine how information systems resources and capabilities affect firm performance.	Survey	<ul style="list-style-type: none"> - The variation of a company's performance is explained by the extent to which IT is used to support and enhance a firm's core competences. - An organisation's ability to use IT to support its core competences is dependent on IS functional capabilities, which are dependent on the nature of human, technology, and relationship resources of the IS department.
Dutta et al. (2005)	To propose a method in order to conceptualise and to measure the resource and capabilities in a company.	Survey	<ul style="list-style-type: none"> - The authors proposed an econometric technique that is well suited to the measurement firm-specific capabilities. They also applied their operationalisation and econometric technique to a sample of firms in the semi-conductor and computer industries, and estimated firm-specific R&D capabilities.
Caldeira et al. (2006)	To explore the potential of information systems competences in small and medium-sized enterprises.	Case study	<ul style="list-style-type: none"> - Small and medium-sized enterprises can develop IS competences, and an organisational capability to use IS strategically and exploit its benefits.
Zerbini et al. (2007)	To identify how suppliers identify, develop, and market competences that add value to their customers' business processes.	Case study	<ul style="list-style-type: none"> - The authors identified the following key features of competence-based marketing in order to create value-for-customers: the alignment of supplier's competences with the customer's business processes, the experiential communication of supplier's competences, and the delivery of competences to the buyer's business processes.

This research has been carried out in the fields of strategic, information system and marketing knowledge. While it helps us to better understand the RBV concepts, it is also relevant to observe that methodologically the RBV has helped the field with inductive, case-based methods focused on a single or a few companies (Hoskisson et al., 1999). Next, we present a review of the Dynamic Capability approach.

3.2.3 Dynamic Capability Approach

The Dynamic Capabilities is a conceptual framework that is widely accepted in the literature. It focuses on the capability of resource reconfiguration (Teece, 2007; Helfat et al, 2007; Eisenhardt and Martin, 2000). In Penrose's (1959) research we can observe the spirit of dynamic capabilities: new combinations of resources lead to innovation and economic value creation.

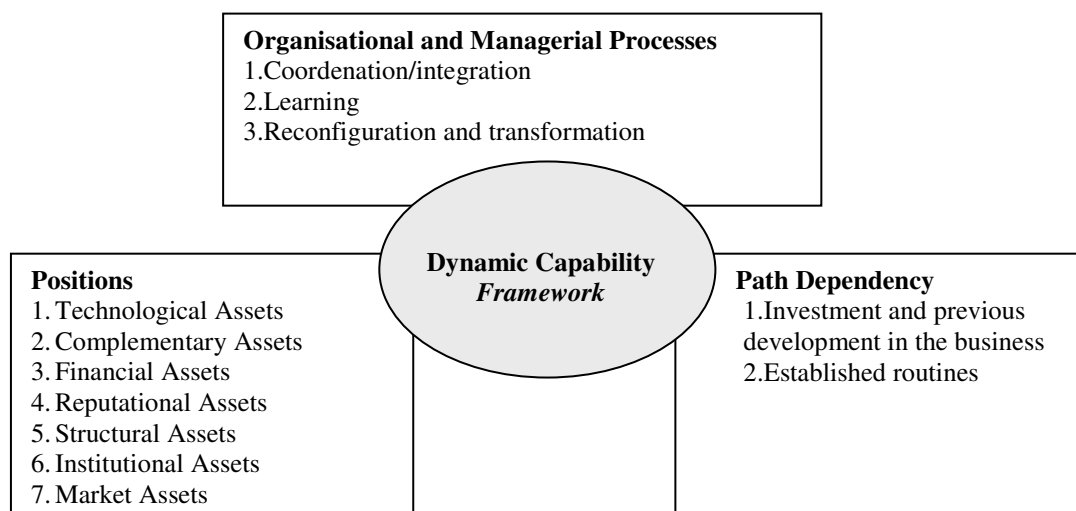
Although the concept of Dynamic Capability has been criticised as tautological, endlessly recursive and non operational (Priem and Butler, 2001), we follow the idea of Makadok (2001) and Bhatt and Grover (2005) who claim that this approach is appropriate for the analysis of organisational initiative related to customer relationship.

As Teece et al. (1997) explain, this theory emphasises the development of management capabilities, and it is based on the difficulty of imitating combinations of organisational, functional and technological skills. Hence, it is important to highlight company characteristics such as the management of R&D (Research and Development), product and process development, technology transfer, intellectual property, manufacturing, human resources, and organisational learning. In light of this, "dynamic capabilities can be seen as an emerging and potentially integrative approach to understanding the newer sources of competitive advantage" (Teece et al., 1997, p. 510).

We can organise the concept of Dynamic Capability in three phases. First of all we have the Teece et al. (1997, p.516) definition: “the firm’s ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments”. Subsequent research, conducted by Eisenhardt and Martin (2000, p.1111) expands this concept, and defines Dynamic Capability as “specific organisational and strategic processes (e.g., product innovation, strategic decision making) by which managers alter their resource base”. The authors believe that “the firm’s processes use resource to match and even create market change” (p.1107). The Dynamic Capability is closed to organisation processes. Finally, we have a concept built on the prior literature, proposed by Helfat et al. (2007, p.4), which we adopt in this research: “A dynamic capability is the capacity of an organisation to purposefully create, extend, or modify its resource base”. It is important to define the word “purposefully”, since it indicates that dynamic capabilities reflect some degree of intent and it also distinguishes dynamic capabilities from accident or luck.

The analytic framework of Dynamic Capability, defined by Teece et al. (1997) and represented in the Figure 6, has some dimensions that help us to understand how to develop a firm’s capabilities dynamically, and then fulfil the goal of alignment with business strategy.

Figure 6. The Dynamic Capability Framework



Source: Adapted from Teece et al. (1997)

As can be seen, the framework includes:

- a) Processes - describing the patterns of practice and learning in a firm;
- b) Positions - meaning the specific assets including technological assets, intellectual property and complementary assets; and
- c) Paths - functions of past activities and positions. The idea of path dependencies recognises the importance of the history, that is, the 'history matters'.

With these three elements, Teece et al. (1997) argue that competitive advantage is built at any point in time and could be shaped by the assets the firm possesses (internal and market) and the evolutionary path it has adopted/inherited. Makadok (2001) highlights two strategic approaches with regard to generate economic revenue: resource-picking and capability-building. The former is related to RBV: in this case companies obtain a good return because they have differentiated resource in relation to their competitors. The latter, capability-building, is linked to Dynamic Capability. In this way companies obtain an advantage in relation to their rivals through resource and capability development. In the Dynamic Capability approach the main question is the relation between the development of new capabilities and the development of the whole company (Sapienza et al., 2006).

Kor and Mahoney (2004) cite Penrose (1959, p.78) to note the issue related to path dependencies in resource development: "... the services that resources will yield depend on the capacities of the men using them, but the development of the capacities of men is partly shaped by the resources men deal with. The two together create the special productive opportunity of a particular firm". According to Penrose (1959), if the company continuously invests in renewing its capabilities via new resource combinations, this enterprise's competitive advantage can be sustainable.

According to the framework proposed by Teece et al. (1997), the development and use of a company's dynamic capability (not replicable) will give rise to the profit that the company will obtain. This framework also indicates that the past will impact on present and future performance, since companies experience "path dependency". In this way, in order to break with the path dependency, managers can project processes and structures in order to support innovation and, at the same time, avoid dysfunction processes and old structures (Teece, 2007). Harrison and Araújo (2000, p.6) argue that "the actors are products, but not prisoners of their own histories".

In the RBV approach resources and capabilities are internal to the organisation whereas in the Dynamic Capability approach resources and capabilities are constantly being developed inside the organisation. Eisenhard and Martin (2000) highlight that internal processes are the source of dynamic capabilities. The authors believe that these kinds of processes are equal for all companies, for example: decision making, product development, partner development, etc. The organisation path enables a company to accumulate knowledge in order to propose new routines and process along the way (Sapienza et al., 2006).

Pisano (2000) proposed a different way of thinking about Dynamic Capability. According to him, there is a specific kind of routine: the dynamic routine. We can

consider the source of Dynamic Capabilities: procedure patterns, continuum improvement and internal learning (Ghemawat, 2000).

Over the last two decades of research, the central point to Dynamic Capability has been the ability to replicate and continually improve organisation capabilities (Gavetti, 2005). According to this perspective, knowledge is transferred among company member through routines, in order to develop capabilities at a highly competitive level (Sapienza et al., 2006).

Eisenhardt and Martin (2000) agree with the evolutionary idea of Teece et al. (1997) and suggest that the Dynamic Capability concept is related to the organisation's evolution. In their view, the organisation's path is unique and it is shaped by learning mechanisms such as practice of codification and mistakes.

“The term ‘dynamic’ refers to the capacity to renew competences so as to achieve congruence with the changing business environment; certain innovative responses are required when time-to-market and timing are critical, the rate of technological change is rapid, and the nature of future competition and markets difficult to determine. The term ‘capabilities’ emphasizes the key role of strategic management in appropriately adapting, integrating, and reconfiguring internal and external organisational skills, resources, and functional competences to match the requirements of a changing environment.” (Teece et al., 1997, p.515).

This theory is applied in situations where a rapid change in technology and market forces occur in firms (Teece et al., 1997). According to the dynamism of market situations, the nature of dynamic capability may assume different configurations. The dynamic capabilities can create completely new routines or they can just be adaptable (Grant, 2002).

The main idea of the Dynamic Capability view is to obtain competitive advantage from temporary advantages. In this line of thought, the Dynamic Capability does not concentrate on observing long term advantages, rather how to maintain the velocity of temporary competitive advantages.

The table presented hereinafter summarises a set of research that has Dynamic Capability as a central theoretical approach. This compilation enriched our understanding of the theory and its practical use for exploring the CRM issue.

Table 7. Literature review summary on Dynamic Capability

Reference	Objectives	Research method	Findings
Teece et al. (1997)	To propose a dynamic capabilities framework that analyses the sources and methods of wealth creation and capture by private enterprise firms operating in environments of rapid technological change.	Theoretical	This seminal paper claims that identifying new opportunities and organising (effectively and efficiently) to embrace them are generally more fundamental to private wealth creation than is strategising, if by strategising one means engaging in business conduct that keeps competitors off balance, raises rival's costs, and excludes new entrants.
Eisenhardt and Martin (2000)	To extend the understanding of dynamic capabilities and RBV.	Theoretical	Dynamic Capabilities exhibit commonalities or 'best practice' across firms, their broad structural patterns vary with market dynamism, and evolve via well-know learning mechanisms.
Lawson and Samson (2001)	To propose the construct of innovation capability to describe the ability of high-performing innovators to achieve effective performance.	Case Study (Technology-networking solutions for the Internet)	The paper proposes an "innovation capability" construct with seven elements: vision and strategy, harnessing the competence base, organisational intelligence, creativity and idea management, organisational structures and systems, culture and climate, and management of technology.
Makadok (2001)	To examine the nature of the interaction between the two main forms of managerial rent-creation activities that has been identified in the strategy literature: resource-picking and capability-building.	Theoretical	The author offers a model that presents insights into the inner workings of the rent-creation process: resource-picking ability affects profitability prior to the acquisition of resources, so it can have value regardless of whether or not the resources are actually acquired.
Helfat and Peteraf (2003)	To introduce the concept of the capability lifecycle, which articulates general patterns and	Theoretical	They emphasised that the capability lifecycle helps to explain the sources of heterogeneity for the firms in which the capabilities reside.

Table 7 (continue).

Reference	Objectives	Research method	Findings
	paths in the evolution of organisational capabilities over time.		
Daniel and Wilson (2003)	To identify the dynamic capabilities that are necessary for e-business transformation and to identify practices that are both effective and common across companies in developing these capabilities, and might therefore be considered as 'best practice'.	Case study (Cross-industry)	Eight distinct dynamic capabilities are identified, each appearing to address either innovative or integrative aspects of e-business transformation.
Bowman and Ambrosini (2003)	To identify some contexts to which the resource-based view (integrating with dynamic capability view) can be applied to create corporate-level strategy.	Theoretical	They conclude that RBV applies in essence to competitive, rather than corporate strategy. They observed that corporate centres may possess resources, but must display dynamic capabilities, otherwise they will destroy shareholder value.
Johnson and Selnes (2004)	To move relationship management research toward a dynamic theory of how to build value for a firm across an entire portfolio of customer relationships.	Theoretical	They proposed a framework that provides scholars working in marketing and CRM with a more dynamic approach to building a sustainable competitive advantage.
Gavetti (2005)	To deliver a research model that jointly considers how routine-based and cognitive logic of action coexist within an organisational hierarchy to affect capability development.	Experiment (Electronic sector)	They explain how a set of propositions regarding how different hierarchical arrangements influence capability development and organisational performance. Model (1) sheds light on cognition's role in capability development and (2) gives the aforementioned role of cognitive representations, how actors choose representations is integral to the causal structure of capability development.

Table 7 (continue).

Reference	Objectives	Research method	Findings
Bhatt and Grover (2005)	To understand how information technologies help to create competitive advantage for a firm.	Survey (IT executives from manufacturing firms)	The results point to the importance of delineating capabilities such as relationship infrastructure that can facilitate differentiation in the marketplace, and dynamic capabilities such as organisational learning as an important antecedent to IT capability building.
Ethiraj et al. (2005)	To perceive where and how these capabilities emerge and how they influence firm performance.	Survey (Software sector)	They found that two main classes of capabilities are significant: (1) client-specific capabilities - it is a function of repeated interaction with clients over time and across different projects; (2) termed project management capabilities – these are acquired through deliberate and persistent investments in infrastructure and systems to improve the firm's software development process.
Pike et al. (2005)	To understand the dynamic value of resources in R&D organisations.	Case Study (Research and Development sector)	The contribution is the development of a triangle of dynamic interaction and transformations between human capital, relational capital, and organisational capital.
Kor and Mahoney (2005)	To understand how firms develop and maintain dynamic capabilities - to examine the effects of the dynamics, management, and governance of R&D and marketing resource deployments on firm-level economic performance.	Historical data (Technology-based entrepreneurial firms)	The authors shown that a history of increased effort and dynamics, and effective management and governance of resource deployments increase economic returns.
Sun and Chen (2006)	To explore how a new venture developed dynamic capabilities through integration and reconfiguration of IT resources to accomplish strategic alignment with their business goals.	Case Study (Semiconductor sector)	The result shows that explicit intended alignment is valuable for steady elaboration of IT resource and IT capability development. The accumulated IT capabilities definitely influence the alignment process and the achievements of implemented alignment. It also shows that the phenomenon of path dependence, caused by existing IT resources, would be deteriorated by short-sightedness

Table 7 (continue).

Reference	Objectives	Research method	Findings
			and escapism.
Marcus and Anderson (2006)	To understand whether a general dynamic capability can breed both business and social competencies.	Survey (Retail food industry)	They offer some evidence into RBV and provide lessons for corporate social responsibility. They suggest that the factors that drive competitive advantage are not the same as those that drive social responsibility.
Lee and Slater (2007)	To identify and analyse the factors whereby it not only utilised status-quo resources but also developed dynamic capabilities as it rose to the top.	Case study (Semiconductor industry)	They show how the firm's dynamic capabilities, the ability to improve its ownership-specific advantages by reconfiguration, transformation and learning, contribute to its home country's idiosyncratic development path.
Harreld et al. (2007)	To illustrate how dynamic capabilities help IBM succeed.	Case study (Technology sector)	At least part of IBM's success has been in their ability to both sense and seize opportunities and to reconfigure the company's structure and competencies to address them.
Teece (2007)	To specify the nature and microfoundations of the capabilities necessary to sustain superior enterprise performance in an open economy with rapid innovation.	Theoretical	- The author proposed a framework in order to help scholars understand the foundations of long-run enterprise success and help managers to delineate relevant strategic considerations to operate in markets open to global competition.
Pavlou and El Sawy (2007)	To offer a new concept "improvisational capabilities" as an alternative strategic means for shaping operational capabilities.	Survey (Research and Development sector)	They theorise and show that organisations can build and rely upon their improvisational capabilities to shape their operational capabilities to address highly turbulent environments.
Green et al. (2008)	To evaluate if the competitiveness of contracting firms could be explained in terms of their 'dynamic capability'.	Case Study (Construction firms sector)	New insights into competitive strategy in the construction sector: (1) importance of path dependency in shaping strategic choice, (2) strategy is a collective endeavour enacted by a loosely defined group of individual actors, (3) DC are characterised by an empirical elusiveness and as such are best construed as situated practices embedded within a social and physical context.

All these papers helped us to observe how scholars use the Dynamic Capability approach in different research areas. Several areas can use the Dynamic Capabilities as a research lense, for example work on managers, alliances, acquisitions, innovation, knowledge management, organisational learning, diversification, market entry, organisational processes, etc. (Helfat et al., 2007). Our interest is to explore the dynamics of companies in order to obtain competitive advantage with a close customer relationship. Johnson and Selnes (2004, p.15) claim that “we need to explore firm-level dynamics and their influence on customer portfolios as well”. The authors propose linking a more dynamic CRM with building a sustainable competitive advantage.

In the next section we will discuss on how Dynamic Capability theory can help us to observe CRM adoptions.

3.3 Dynamic capability: a CRM perspective

Some authors began the discussion about the importance of a company’s capabilities in the adoption of CRM (Day, 2000; Dibb and Meadows, 2004, Plakoyiannaki and Tzokas, 2002). In order to adopt and manage a CRM initiative, organisational processes are being constantly thought over (Gibbert et al., 2002). According to Bohling et al. (2006) change management is crucial for achieving success in a CRM initiative. This presupposes the dynamic nature of such a business approach.

We are convinced that technology underlying CRM could not create such an advantage, but the combination of organisational resources, competences and capabilities - like relational information processes, the customer knowledge generated from these processes, the integration of processes, and the customer loyalty resulting from the value creation processes - would be difficult to imitate (Boulding et al., 2005; Raman et al., 2006; Bohling et al., 2006).

The relationship between a company and a customer is considered unique. We can observe that this relationship is influenced by many company-customer dyad actions held over time. Cultivating each relationship with a customer can be understood as an organisational dynamic capability. IT is a factor that helps organisations conduct a relationship with a customer. Ciborra (2002) proposed the term *cultivation* in order to deal with technological infrastructure. The author highlights that IT artefacts have a life of their own and people must find ways to live with them. Ciborra (2002) argues that companies must find alternative practices that do not demand intensified use of technology. We believe that companies can use IT to cultivate customer relationship, but, at the same time, offer a customer something that exceeds a “computerised relationship”.

Sustainable development of a CRM strategy depends on different organisational capabilities. Plakoyiannaki and Tzokas (2002) argue that proposing a list of critical CRM capabilities is a challenging goal, since they are derived from several bodies of literature and need to be further articulated for development within the organisation.

According to Teece (2007) an organisational dynamic capability can be continually created, expanded, innovated, protected, and can maintain an organisational resource as unique and relevant in a company. Many of these movements of resources are induced by the external environment that a company is inserted in. The customer relationship management must take into account that this “relationship” occurs in an ecosystem with various actors. We cannot analyse the relationship between company and its customers without considering all the elements of the ecosystem.

Teece (2007) refers to “ecosystem” as the environment where the relationship between company and customer is being developed, in a B2B (Business to Business) or B2C (Business to Consumer) relation. A lot of actors are present in an ecosystem, e.g.,

competitors that are also looking for the development of a close, long, and profitable relationship with customers. The suppliers are critical actors in the same environment. A good relationship with suppliers enables the firm to secure the necessary resources to support the development of products and services to the customer. Another relevant actor is the regulating authorities that have some powers to influence the relationship between customer and company, for example by defining quality patterns or helping consumers to defend their rights. One more important actor in this environment is the perspective customer. This kind of customer could buy some goods or services in a company but does not maintain an active relationship with the organisation.

Other ecosystem elements must also be taken into consideration: the industry and the market structures that are in the company's interest. These elements are important, as the company will respond to market tendencies and this would influence the relationship with a customer. Finally, Teece (2007) highlights the new technological possibilities that enable the improvement of the information flow inside the organisation.

There is an important link between dynamic capabilities and organisational processes. Teece et al. (1997, p.524) argue that "dynamic capability is resident in the firm's organisational processes". According to Maritan (2007), dynamic capabilities are about changes, and organisations use various processes (search processes, decision-making processes, management processes, etc.) in order to identify the need or opportunity for change.

Plakoyiannaki and Tzokas (2002) proposed a list of CRM critical processes:

- a) Creating a corporate culture conducive to customer orientation, learning and innovation;
- b) Making customer value a key component of the corporate strategy and planning process;
- c) Collecting and transforming customer data to aid strategic and operational decision making;

- d) Appreciating, identifying and nurturing knowledge creation, dissemination and use within the organisation;
- e) Developing clear market segments and customer portfolios;
- f) Defining, developing and delivering the value proposition;
- g) Using campaign and channel management as part of the valuable proposition;
- h) Measuring performance at each stage of the process to navigate decision making.

Each process related to a CRM strategy needs to be improved over time in an organisation. We believe that the CRM adoption and CRM management processes are unique for each company. Hence, we consider “path dependence” and “dynamic capabilities” as lenses to explore this phenomenon.

According to Teece et al. (1997, p.515) one of the central dynamic capability theory ideas is that capabilities emerge from a series of path-dependent learning experiences. As the authors claim “At any given point in time, firms must follow a certain trajectory or path of competence development. This path not only defines what choices are open to the firm today, but it also puts bounds around what its internal repertoire is likely to be in the future”. Therefore, we agree that adaptation to a changing environment poses a critical challenge for the development of a firm’s capabilities.

Observing arguments presented by Raman et al. (2006) and Plakoyiannaki and Tzokas (2002), we shall identify the categories of organisational capabilities which may influence the success of CRM implementation.

3.3.1 Learning and market orientation capabilities

Plakoyiannaki and Tzokas (2002) suggest that market orientation and learning capabilities are deeply embedded in the CRM system, customer insight generation and knowledge discovery, value, and performance measurement processes.

As the company's environment is very competitive, the managerial competences need to change constantly. Eisenhardt and Martin (2000) emphasise that with the "dynamic capabilities" concept, the value an organisation may hold is the ability to alter its resource base. Thus, its competitive advantage can be increased by the creation, integration, recombination and realisation of resources. When we reflect on the dynamic view about resources and capabilities, we highlight the importance of a company being able to learn with each relationship (internal and external, with different stakeholders).

It is crucial to emphasise that mistakes also play a significant role in the evolution of dynamic capabilities (Eisenhardt and Martin, 2000). Over the last years, many companies have tried to adopt CRM and in many cases they have failed. Although major failures raise barriers that block learning, the companies sometimes learn from these mistakes and improve their CRM adoption process. We can consider this step a significant learning point in a CRM adoption process.

Raman et al. (2006) proposed organisational learning as an antecedent to the successful implementation of CRM. They based their research on previous academic work that demonstrated some basic characteristics: (1) Developmental and group behaviour displayed by employees to promote continuous learning within an organisation; (2) the removal of knowledge barriers through learning, and (3) organisational learning in the context of technical training available, technical expertise, and the level of knowledge of the innovation.

Bhatt and Grover (2005) found in their study that the intensity of organisational learning (dynamic capabilities) was significantly related to all the capabilities. According to the authors, these results point to the importance of delineating capabilities such as relationship infrastructure, which can facilitate differentiation in the

marketplace; and dynamic capabilities such as organisational learning are an important antecedent to IT capability building.

Bhatt and Grover (2005) claim that the dynamic capability called “organisational learning” was found to be significantly related to the quality of IT infrastructure, IT business experience, and relationship infrastructure. Following the authors, the role of intensity of learning becomes especially “critical when rapidly changing environments require firms to assimilate knowledge that can be used to improve IT infrastructure quality, enhance IT business skills (learning new ways to use IT), and initiate and maintain the relational infrastructure” (p.271). We agree with the authors’ statement that a high level of learning intensity allows a firm to rapidly change its IT infrastructure, IT business experience, and the state of the relationship infrastructure in order to meet its future business application needs.

3.3.2 Integration capabilities

According to Plakoyiannaki and Tzokas (2002), CRM is an organisation-wide investment that seeks to maximise the value delivered to the customer by personalising conducts and offerings. It implies that customers begin to use multiple channels, as they may buy one product from the salesperson and another from the web site. The customer may learn about a product from the web page and purchase it from a distributor. As a result, Shoemaker (2001, p.178) claims that “it becomes more difficult and more important to manage the customer relationship seamlessly, presenting a consistent image, service level, and message however the customer chooses to participate”. A customer has many ways to interact with the firm: sales force, retailer/wholesaler partners, call centre, web site and fax services, as well as receiving promotional messages from advertisements, direct mail and shopping channels.

This capability requires an IT group to understand business needs and create a partnership with other teams. They can develop strategies that help all channels to answer customers' queries with consistency. In order to develop an integrated view with different sectors working together, a major component of the relationship infrastructure is: the trust between IT groups and business units (Bhatt and Grover, 2005).

Campbell (2003) believes that other relevant factors of integration in the company are related to marketing and the IT department. While marketing requires the development of external capabilities to link a firm with its customers, technology development is an internal capability that sustains a firm's market position. "Domain similarity" is needed between marketing and IT departments for successful CRM initiatives. "Domain similarity refers to the degree to which two different departments share the same goals or tasks" (Campbell, 2003, p.379).

The author claims that this similarity between marketing and IT may be achieved through different organisational mechanisms, ranging from informal communication linkages to joint committees and project teams or cross-functional integration. This integration reflects the increment of employees' creativity potential, since it encourages employees with different perspectives to interact with each other (Campbell, 2003).

3.3.3 Analytical capabilities

Analytical capabilities are linked to technological artefacts and knowledge, and they play an active role in enhancing relationships with customers (Plakoyiannaki and Tzokas, 2002). This capability shows that while customer data are readily available through existing CRM database software packages, data alone do not lead to customer knowledge. Campbell (2003) claims that managers need to transform data into customer

information and integrate the information throughout the firm to develop customer knowledge.

Raman et al. (2006) refer to “task-technology fit” as the degree to which technology assists an individual task. The authors find the user’s ability to use all kinds of technology that support CRM strategy crucial for success. This implies the customisation of software packages and adequate training.

One such important technological artefact is the Intranet. According to Campbell (2003), the Intranet is an important first step towards creating better internal relations in order to improve the overall external relationships with customers.

Knowledge about customer competence is based on generating and integrating customer information throughout the organisation. It is not inimitable, “because the processes of generating and integrating customer knowledge are embedded in organisational cognitive activities and are not observed readily from outside, and immobile, because these processes are created within the firm and cannot be purchased in the market” (Campbell, 2003, p.376).

3.3.4 Operational capabilities

Plakoyiannaki and Tzokas (2002) state that operational capabilities apply and enhance resources. According to the authors, these capabilities are skills developed at functional and administrative levels that translate customer information into service offerings. We agree with those who understand that operational capabilities cut across the customer value process.

CRM packages play an important role in facilitating the integration between the customer and the firm, “enabling the firm to coordinate all the points of communication to present the customer with the desired image, message, and information” (Shoemaker,

2001, p.177). The author states that time management and communication functions, such as scheduling and e-mail capability, are often incorporated into CRM systems.

3.3.5 Direction capabilities

This group of capabilities is the compass for the course of the CRM system and the organisation. Direction capabilities depend on strategic skills and reflect the sharpness of corporate long-term vision and organisational values.

In relation to business orientation process we assert that distinctive capabilities can only occur in an organisation when a balance between the external and internal environment is present (Day, 1994; Raman et al., 2006). Organisational capabilities help explain the performance of innovations when organisations attempt to match existing processes with CRM new technologies.

In a CRM initiative companies perform “customer-centric orientation” (Raman et al., 2006). It consists of organisational structure and processes focused on customers rather than functional areas, as Day (2000) claims. Its main goal is to keep the organisation’s attention on customer interactions and ensure that expertise from different functional areas is deployed to promote the quality of customer experience.

In our point of view “direction capabilities” in a CRM initiative have to take the following into account (Campbell, 2003):

The importance of building teams across all functional areas of the firm. This kind of work should be structured in a way that encourages strong interfunctional links throughout the firm.

The involvement of senior management. This feature is considered critical in the development of a customer knowledge competence. Senior management can articulate a

vision around their adoption of CRM that is widely disseminated and appears to be well understood within the firm.

The organisational values. These values play a significant role in creating customer knowledge competence. While senior management involvement tends to be perceived as “support from the top,” organisational values are viewed as dependent on the active participation of all employees stemming from employees motivation and task interdependencies.

The way in which employee’s performance is measured reflects the way companies really understand CRM. Campbell (2003) mentions that employee performance measures: (1) sales team productivity (customer retention rates, response rates, increased customer spending); (2) quality of performance (customer satisfaction ratings, ability to fulfil customer requests at first point of contact; effective and efficient communications with customers, and ability to maintain customer retention); (3) sales (volume of sales and profit, not just number of calls); and (4) leadership (employee’s initiative while approaching new customer).

Grant (2002) claims that the employees’ ability to harmonise their efforts and integrate their separate skills depends not only on their interpersonal skills but also on the organisational context. Companies must guide their efforts to answer their CRM objectives. “Direction Capabilities” are related to the achievement of CRM objectives. As Grant (2002) states, the organisational context is determined by an intangible key resource: the organisational culture.

One of the most recent theoretical thinking about Dynamic Capability is Teece’s (2007) research. The author proposes breaking down the organisational Dynamic Capability concept into various key activities and processes that mobilise resources in a company, which he calls “meta-dynamic capability”.

Human resources are the main internal actors. These actors have individual competences but they work in a company that has its own organisational structure (it has its own characteristics as culture, history, etc.). The Dynamic Capability results from the mobilisation of the company's available processes, resources and competences, within the ecosystem in which the company exists.

Here we present the meta-dynamic capability proposed by Teece (2007):

To sense and shape opportunities and threats: This meta-capacity is related to sensing and shaping new opportunities by scanning, creation, learning, and interpretive activity. This does “not only involve investment in research activity and the probing and reprobation of customer needs and technological possibilities; it also involves understanding latent demand, the structural evolution of industries and markets, and likely supplier and competitor responses” (Teece, 2007, p.4).

To seize opportunities: There are four main activities which this meta-capability refers to: (1) delineating the customer solution and the business model, (2) selecting enterprise boundaries to manage complements and control platforms, (3) selecting decision-making protocols, (4) building loyalty and commitment among organisation employees and other stakeholders.

To maintain competitiveness through enhancing, combining, protecting, and, when necessary, reconfiguring the business enterprise's intangible and tangible assets: Various activities are linked with this meta-capability. One of them refers to achieving decentralisation in order to facilitate the sustainability of a dynamic capability. This activity brings the top managers close to information technology topics, customers and the market. Another meta-capability is related to managing cospecialisation. This refers to the manager's ability to identify, develop and use the specialised resource

combination. Finally, the author mentions the government and the structures that allow the learning and the conception of new knowledge.

This meta-dynamic capability is considered critical, and it is closely related to a manager's responsibilities. Helfat et al. (2007) claim that managerial capabilities include asset orchestration, in many cases involving co-specialised and complementary assets within the resource base of an organisation. When we refer to an asset orchestration, we presuppose that it is a fundamental function of management that is considered important in dynamic settings. In this case, managers must assemble these resources and also design appropriate governance and incentive structures.

According to Penrose (1959), managers can change the productive services resources and the conditions that affect productive opportunities. The company that has the entrepreneurial manager can secure superior opportunities. Kor and Mahoney (2004) argue that some companies may have brilliant visionaries by luck, but it is possible to get them by developing the appropriate corporate culture, human resource practices, and reward systems that will cultivate the entrepreneurial faculties in their employees.

If we compare Porter's (1980) Five Forces framework, which also analyses a company's strategic positioning, with the Dynamic Capability approach, it is possible to observe some differences. We highlight the dynamic ecosystem element, which is present in a company, and questions related to network effects (role of complementarities), path dependencies, and co-evolution of technologies. Moreover, dynamic capabilities are not only related to a specific sector but a to business ecosystem (Teece, 2007).

3.4 Summary

In this chapter we discussed how the Dynamic Capability approach can help us to observe and improve Customer Relationship Management initiatives in organisations. Having analysed these capabilities, we claim that the concepts emphasised by the dynamic capability perspective, such as “evolution”, “resource configuration”, “learning”, and “path dependence” are close or complementary to the CRM initiative.

We believe that the dynamic capability approach provides a basis for examining the role of CRM, which supports the variety of relationships involved in the creation of a sustainable competitive advantage. Grant (1991, p.123) highlights that the return of a firm’s resources and capabilities depends upon two key factors: (1) the sustainability of the competitive advantage achieved by resources and capabilities conferred upon the firm; and (2) the firm’s ability to appropriate the profit earned from its resources and capabilities. According to Helfat et al. (2007) a competitive advantage holds when a set of resource and capabilities creates relatively more value than comparable resources and capabilities of competing organisations do.

In relation to the CRM initiative, we claim that technological artefacts are replicated and some of the relationship initiatives can be copied, but the dynamic set of CRM organisational capabilities cannot be imitated. Competitive advantage depends “upon the stock of resources and capabilities that a firm possesses” (Grant, 1991, p.127) and the organisational capacity manages the dynamic flow. In this sense, a very profitable and close relationship can be viewed as a sustainable advantage that results from the way a company orchestrates its resources and capabilities (Helfat et al., 2007).

CHAPTER IV

Philosophical Perspective and Research Strategy

4.1 Introduction

Conducting research in Information System is significantly different from research in other social science areas, at least for two reasons: the maturity level of the scientific area (research in IS is relatively recent) and IS research involves different areas of knowledge (Palvia et al., 2003). These characteristics probably influence the fact that the Information System field can be viewed as embodying a mixture of scientific, technical, organisational, societal and psychological aspects (Wood-Harper, 1985). It justifies the diverse research methods, research paradigms and research approaches that one can find in IS research (Wade and Hulland, 2004).

This chapter provides an overview of the adopted research paradigm, and it also details the methodology of the study: the way we conducted the field work and the way we analysed the collected data.

The chapter is structured in four sections as follows. In the first section we detail all questions related to the research paradigm, then we discuss the adopted research strategy, and finally we detail the research design, that is, all the methodological steps taken.

4.2 Research Paradigm

The research paradigm is defined by observing the adopted researcher's ontological and epistemological perspective. In this section we discuss ontology and epistemology, and finally present the research paradigm.

4.2.1 Ontology and Epistemology

According to Crotty (2003, p.10), “to talk of the construction of meaning is to talk of the construction of meaningful reality”. Therefore, ontological and epistemological issues generally emerge together.

The ontology refers to the study of the nature of what exists in the world, that is, the nature of being. Iivari et al. (1998, p.172) explain that ontology deals with the structure and properties of “what is assumed to exist”.

According to Orlikowski and Baroudi (1991, p.7): “Ontological beliefs have to do with the essence of phenomena under investigation, that is, whether the empirical world is assumed to be objective and hence independent of humans, or subjective and hence having existence only through the action of humans in creating and recreating it”.

Walsham (1995a) distinguishes various natures of reality in the following way.

Table 8. Alternative stances of reality

Ontology	Description
External realism	Reality exists independently of our construction of it.
Internal realism	Reality-for-us is an inter-subjective construction of the shared human cognitive apparatus.
Subjective idealism	Each person constructs his or her own reality.

Source: Walsham (1995a, p.76)

The researcher’s epistemology is related to what he/she admits human knowledge is, and mainly, how it can be acquired. Epistemology is the study of the nature of knowledge, its defining features, its substantive conditions and its limits. According to Iivari et al., (1998, p.174), “epistemological assumptions are concerned with the nature of knowledge and the proper methods of procedures by which we can obtain knowledge”.

Orlikowski and Baroudi (1991, p.8) improve this discussion by claiming that “Epistemological assumptions concern the criteria by which valid knowledge about a phenomenon may be constructed and evaluated”.

Concerned with the nature of knowledge, Walsham (1995a) distinguishes three main kinds of epistemology.

Table 9. Alternative stances of knowledge

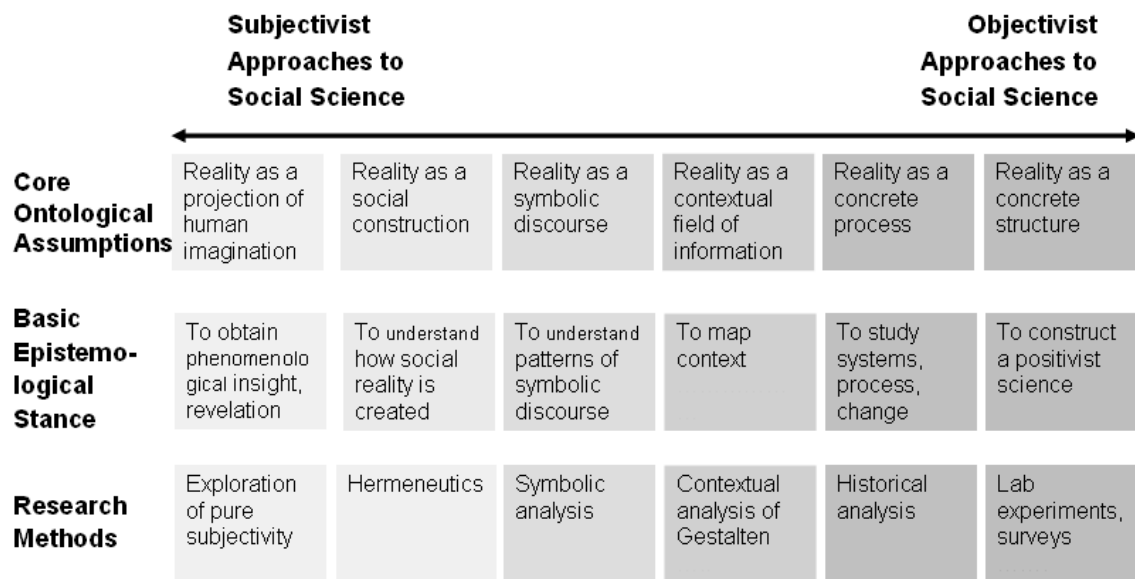
Epistemology	Description
Positivism	Facts and values are distinct and scientific knowledge consists only of facts.
Non-positivism	Facts and values are inter-twined, both are involved in scientific knowledge.
Normativism	Scientific knowledge is ideological and inevitably conducive to particular sets of social ends.

Source: Walsham (1995a, p.76)

Morgan and Smircich (1980) observe that different assumptions related to ontology pose relevant problems of epistemology. In other words, the “different world view they reflect imply different grounds for knowledge about the social world” (p.193). According to the authors, an objectivistic view of the social world gives rise to the epistemology of positivism and encourage to research precise nature of laws, regularities, and relationship among phenomena measured in terms of social facts. On the other hand, there is an epistemology that emphasises the importance of understanding the processes through which human beings concretise their relationship to their world.

The Figure 7 presents the scheme elaborated by the authors, related to assumptions about ontology, epistemology and research methods.

Figure 7. Subjective - Objective Debate within Social Science



Source: Adapted from Morgan and Smircich (1980)

Morgan and Smircich (1980) claim that the transition from one perspective to another is gradual, and in many cases the research position incorporate insights from others.

4.2.2 The adopted research paradigm

The research paradigm will result from the ontology and epistemology followed by the researcher. All these elements are interconnected. Orlikowski and Baroudi (1991) believe that all three research philosophies - positivism, realism and interpretivism – can offer an insightful perspective on the phenomena of interest in IS research. In order to justify the adopted research strategy, we first present a brief overview of these three main philosophical perspectives.

Researchers adopt a positivism philosophical perspective when believe that facts and values are distinct, and scientific knowledge consists almost exclusively of observable facts. According to them, human behaviour can be explained in terms of

cause and effect. Caldeira (2000) explains that from a positivist perspective social and natural phenomena can be explained in a similar way. Positivist studies follow the premise related to the “existence of a priori fixed relationships within phenomena which are typically investigated with structured instrumentation” (Orlikowski and Baroudi, 1991, p.5). The philosophical positivist tradition emphasises generalisability as a key feature. Lee and Baskerville (2003) discuss the positivist need to discover universal laws that govern the studied phenomena.

The critical realist paradigm can be characterised by the critical intention to change reality and the wish to emancipate alienated individuals. Caldeira (2000) states that researchers following a realist perspective focus on understanding the mechanisms and structures that rule social behaviour. According to Miles and Huberman (1994), a realist researcher thinks that social phenomena exist not only in the mind but also in the objective world. Moreover, that some plausible relationships are to be found among them. Orlikowski and Baroudi (1991, p.6) reflect that critical realists “aim to critique the status quo, through the exposure of what are believed to be deep-seated, structural contradictions within social systems, and thereby to transform these alienating and restrictive social conditions”.

Caldeira (2000), analysing critical realism literature, concludes that this is a unique philosophical perspective, although different research methods can be used and combined. For Mingers (2004, p.100), critical realism includes the qualitative or quantitative description of the phenomenon and, mainly, it wants to “get beneath the surface to understand and explain why things are as they are, to hypothesise the structures and mechanisms that shape observable events”. This author makes two more important statements: (1) critical realism recognises the existence of a variety of objects of knowledge - material, conceptual, social, and psychological - each of which requires

different research methods to come to understand them, and (2) critical realism recognises the inevitable fallibility of observation, especially in the social world.

The last mentioned philosophical perspective is called interpretivism. This is what we adopted in this research. According to Walsham (1993), an interpretivist epistemological position is concerned with the understanding of reality and states that knowledge is subjective, being a social construction. Following Walsham's (1995a) indications, this research does not aim to generate truth or social laws, we aim to interpret issues related to CRM organisational initiatives. Walsham (1995a) also highlights the necessity of each researcher to reflect on his/her own philosophical stance and for it be stated explicitly in the work.

Orlikowski and Baroudi (1991, p.5) observe that interpretive studies "assume that people create and associate their own subjective and intersubjective meanings as they interact with the world around them. Interpretive researchers thus attempt to understand phenomena through accessing the meaning that participants assign to them". For Walsham (2006), our knowledge of reality (including the domain of human action) is a social human construction.

In this case, it is important to observe that interpretivist researchers are no more "detached" from their objects of study than are their informants. Miles and Huberman (1994, p.8) argue that researchers have "their own understandings, their own convictions, their own conceptual orientations; they too, are members of a particular culture at a specific historical moment".

An interpretivist perspective of science states that the social world is essentially relativistic and can only be understood by interpreting the activities which are to be studied. Interpretive methods of research assume that our knowledge of reality is a

social construction by human actors and researchers, and thus subjective (Caldeira, 2000, p.75).

Walsham (1993) states that interpretive methods are concerned with generating understanding of the IS context and the process, whereby the IS influences and is influenced by its context. Klein and Myers (1999, p.67) argue that “Interpretative research can help IS researchers to understand human thought and action in social and organisational contexts; it has the potential to produce deep insights into information systems phenomena including the management of information systems and information systems development”. According to Lee and Baskerville (2003), interpretivist researchers believe that the goal of universal laws is inappropriate in the human studies because social units are all unique, and they demand idiographic theorising.

Walsham (1995a) identified four substantively different strands of thought within the interpretive philosophical perspective: (1) phenomenology, (2) ethno-methodology, (3) the philosophy of language, and (4) hermeneutics. This study has adopted a phenomenological approach as a methodology for social inquiry.

A phenomenon is what humans directly experience (Crotty, 2003). Once a person approaches a phenomenon and his/her initial understanding of it, in sequence the phenomenological method proposes to question what is usually take for granted. It proposes that (as best as one can) the prevailing understanding of the phenomenon under study should be set aside and we should review the immediate experience of it as a possibility for finding new meaning or an enhancement of a current meaning (Van Manen, 2002; Crotty, 2003).

According to Van Manen (2002) phenomenological studies cannot be formalised into a series of technical procedures. However, a variety of activities may be identified

that can help. Klein and Myers (1999, p.72) suggest a set of principles for conduct and evaluation of interpretive field research in information systems.

Table 10. Principles for conducting and evaluating interpretive field research

Principle	Description
1. The fundamental principle of the hermeneutic circle	This principle of human understanding is fundamental to all the other principles. This principle suggests that all human understanding is achieved by interacting between considering the interdependent meaning of parts and the whole that they form. The process of interpretation moves from a precursory understanding of the parts to the whole and from a global understanding of the whole context back to an improved understanding of each part.
2. The principle of contextualisation	Requires critical reflection of the social and historical background of the research setting, so that the intended audience can see how the current situation under investigation emerged. Interpretivists argue that organisations are not static and that the relationships between people, organisations, and technology are not fixed but constantly changing.
3. The principle of interaction between the researchers and the subjects	Requires critical reflection on how the research materials were socially constructed through the interaction between the researchers and participants. Interpretivism suggests that the facts are produced as part and parcel of the social interaction of the researchers with the participants.
4. The principle of abstraction and generalisation	Requires relating the idiographic details revealed by the data interpretation through the application of principles one and two to theoretical, general concepts that describe the nature of human understanding and social action. Generalisability, according to Lee and Baskerville (2003), refers to the validity of a theory. According to Walsham (1995a) there are four types of generalisation from interpretative case studies: the development of concepts, the generation of theory, the drawing of specific implications, and the contribution of rich insight. Lee and Baskerville (2003) highlight that in this paradigm the existence of a phenomenon is not present in the subject matter studied by natural sciences. Instead, people develop and use their own subjective understandings of themselves, their setting, and their history. The authors claim that the notion of generalizability of empirical descriptions to theory is well developed, and the criticisms that interpretativism case studies are not generalizable would be incorrectly.
5. The principle of dialogical reasoning	Requires sensitivity to possible contradictions between the theoretical preconceptions guiding the research design and actual findings with subsequent cycles of revision.

Table 10 (continue).

Principle	Description
6. The principle of multiple interpretations	Requires sensitivity to possible differences in interpretations among the participants as are typically expressed in multiple narratives or stories of the same sequence of events under study.
7. The principle of suspicion	Requires sensitivity to possible “biases” and systematic distortions in the narratives collected from the participants. This principle indicates that researcher must go beyond understanding the meaning of the data – the researcher must read the social world behind the words of the actors. The social world is characterized by power structures, vested interests, and limited resources to meet the goals of various actors who construct and enact this social world.

We must highlight Miles’ and Huberman’s (1994, p.4) observation that “few postpositivists will dispute the validity and importance of subjective meaning, and few phenomenologists still practice pure hermeneutics”. In epistemological debates the authors observe that people operate at the poles, but in the actual practice of empirical research all paradigms are closer (realists, interpretivists, critical theorists).

4.3 Research Strategy

According to Orlikowski and Baroudi (1991) the goal of methodological assumption is to indicate the research methods and techniques that help the researcher gather empirical evidence. There are several ways of conducting social science research: experiments, surveys, history, analysis of archival information, case study (Yin, 2003). Yin (2003) claims that the choice must consider (1) the type of research question, (2) the investigator’s control over actual behavioural events, and (3) the focus on contemporary as opposed to historical phenomena.

The research method can be qualitative or quantitative. According to Stake (1995, p.37), there are three differences in qualitative and quantitative research: (1) the distinction between explanation and understanding as the purpose of enquiry, (2) the

distinction between personal and impersonal role for the researcher, and (3) a distinction between knowledge discovered and knowledge constructed.

Traditionally, there are two main research methods: survey and experiment. According to Palvia et al. (2003), survey is a kind of research that uses predefined and structured questionnaires to capture data from individuals. Another quantitative method - laboratory experiment - is a simulation of a laboratory environment that manipulates and controls various experimental variables and subjects (Palvia et al., 2003).

According to Shah and Corley (2006), qualitative methods are powerful especially when used to build new or refine existing theories. One qualitative method appropriate to use in IS discipline is action research (Baskerville and Wood-Harper, 1998). The authors justify the method due to it being highly clinical in nature, in other words, it merges research and praxis thus producing exceedingly relevant research findings and also helping organisations. Action research is a cognitive process that depends on the social interaction between the observers and those in their surroundings (Baskerville and Wood-Harper, 1998, p.91).

The grounded theory is also a relevant qualitative research method. According to Punch (2000, p.103), grounded theory is a research method that “offers a comprehensive and systematic framework for inductively building theory”. In this case, actors construct meaning out of intersubjective experience, with an interpretive process. The main idea is to analyse the meaning and concepts used by social actors in real settings (Suddaby, 2006).

We have presented a brief overview related to IS research method. Next, we discuss the adopted research method: case study.

4.3.1 Case Study

Case study research is considered a versatile method, because it can be used with any philosophical perspective, be it positivist, interpretivist, or critical (Dubé and Paré, 2003). Case study in the IS area is justified by the distinctive need to understand complex social phenomena. Yin (2003) claims that this method allows the researcher to retain the holistic and meaningful characteristics of real-life events, e.g., organisational processes and the maturation of industries. This method is relevant for the IS field because it opens “the way to new ideas and new lines of reasoning and pinpoints the opportunities, challenges, and issues facing IT specialists and managers” (Dubé and Paré, 2003, p.598).

The main idea is that the researcher deliberately covers contextual conditions, that is, investigates a contemporary phenomenon within its real-life context. Moreover, the kind of study phenomenon is not distinguishable in real-life situations, “the boundaries between phenomenon and context are not clearly evident” (Yin, 2003, p.13).

Benbasat et al. (1987) indicate three reasons why case study research is a viable IS research strategy: (1) the researcher can study information systems in a natural setting, learn about the state of the art, and generate theories from practice; (2) the method allows the researcher to answer “how” and “why” questions, that is, allows the understanding of the nature and complexity of the processes taking place; and (3) this method is an appropriate way to research an area in which few previous studies have been carried out.

According to Darke et al. (1998), there are three main goals that lead to adopting case study as a method: to provide descriptions of phenomena, develop theory, and test theory. Eisenhardt (1989) wrote specifically about ways to develop theory using case study method.

Case study research can be conducted following different philosophical perspectives. The table below presents characteristics that distinguish different types of case studies.

Table 11. Research philosophies in case study research: positivist and interpretive

Perspective	Characteristics
Positivist	<ul style="list-style-type: none"> - There is evidence of formal propositions. - Quantifiable measures of variables. - Hypothesis testing. - To test theory. - Drawing of inferences about the phenomenon from a representative sample to a stated population.
Interpretive	<ul style="list-style-type: none"> - They assume that our knowledge of reality is gained only through social construction such as language, consciousness, shared meanings, documents, tools, and other artefacts. - It does not predefine dependent and independent variables, but focuses on the complexity of human sense making as the situation emerges. - It attempts to understand phenomena through the meanings that people assign to them. - To increase predictive understanding of phenomena. - Evidence of a nondeterministic perspective where the intent of the research is to increase understanding of the phenomenon within cultural and contextual situations. - The phenomenon of interest is examined in its natural setting and from the perspective of the participants. - The researchers do not impose their outsiders' a priori understanding on the situation.

Source: Based on Orlikowski and Baroudi (1991) and Klein and Myers (1999)

The following papers can be mentioned as the examples of various case study philosophic perspectives: (1) Positivist: Yin (1994), Benbasat et al. (1987), Dubé and Paré (2003); and (2) Interpretive: Walsham (1993).

A researcher is provided with a set of quality rules when the case study is conducted in positivist ontology. Yin (2003) describes four conditions related to design quality:

Table 12. Quality in research design

Condition	Description	Procedures
Construct validity	Establishing correct operational measures for the concepts being studied.	<ul style="list-style-type: none"> - use multiple sources of evidence - establish chain evidence - have key informants review draft case study report
Internal validity	Establishing a causal relationship as distinguished from spurious relationships (just for explanatory or causal studies).	<ul style="list-style-type: none"> - do explanation-building - address rival explanations - use logic models
External validity	Establishing the domain to which a study's findings can be generalized.	<ul style="list-style-type: none"> - use theory in single-case studies - use replication logic in multiple-case studies
Reliability	Demonstrating that the operations of a study can be repeated, with the same results.	<ul style="list-style-type: none"> - use case study protocol - develop case study database

Source: Based on Yin (2003)

Lee (1989) provides a set of relevant characteristics of a positivist case study, mainly responding to questions related to a single case study. According to the author, there are four main problems indicated in single case studies: (1) making controlled observations, (2) making controlled deductions, (3) allowing for replicability, and (4) allowing for generalisability. All of them are important characteristics for natural science and, as a result of them, case studies have been criticised (Benbasat et al., 1987).

According to Klein and Myers (1999), these suggested positivist criteria are inappropriate for interpretive research. The authors agree that interpretive research does not subscribe to the idea that a pre-determined set of criteria can be applied in a mechanistic way, but it is important to highlight that there are some standards according to which interpretive research can be judged.

Despite the cited differences among positivist, interpretive and critical perspectives, Walsham (1995a) claims that there are many points of agreement among case study researchers working. As an example the kind of a research question (“how” and “why”) and the multiple source of evidence can be cited.

The case study method can use qualitative evidence, quantitative evidence or both (Eisenhardt, 1989; Yin, 2003). The researcher may use various sources to collect evidence: documentation, archival records, interviews, direct observations, participant-observation, and physical artefacts (Yin, 2003). Regarding positivist case studies there are three principles that must be followed in order to make the process reflect a concern for construct validity and reliability (Yin, 2003):

Use multiple sources of evidence - it is important to triangulate data sources in order to obtain multiple measures for the same phenomenon. It will help solving the problem of construct validity.

Create a case study database - the main purpose is to document the connection between specific pieces of evidence and various issues in the case study.

Maintain a chain of evidence - this deals with the problem of reliability of the study, as it allows the reader of case study to follow the derivation of any evidence, ranging from initial research question to ultimate case study conclusion.

Case studies can involve either single or multiple cases (Yin, 1984). According to Stake (1995), qualitative researchers understand the uniqueness of individual cases as crucial for understanding. Yin (2003) describes some reasons for conducting a single case study. First, the case represents the critical one in testing a well-formulated theory. Second, it represents an extreme or unique case. Third, the case is representative or typical. Fourth, the case is revelatory. Fifth, the case can be analysed in a longitudinal way, studying the same case at two or more different points in time.

The purpose of planning a multiple case study is anchored in arguments such as robustness. Yin (2003) explains that the replication logic tries to observe if the case predicts similar results (a literal replication) or it predicts contrasting results, but for predictable reasons (a theoretical replication). In the case of multiple case studies it is

important to elaborate a theoretical framework in order to compare the cases and generalizing for the new cases. This kind of design is more expensive and time-consuming to conduct.

In order to build knowledge related to the researched phenomenon, we adopted case study as the research strategy. We highlight the Iivari et al.'s (1998, p.175) idea related to the necessary observation of ontology, epistemology and research methodology. "Even though ontology, epistemology, and research methodology are independent in principle, they tend to be interrelated in practice".

In order to achieve the purpose of this study a qualitative, interpretative, case-based research strategy was implemented in a multiple case study. This research method was chosen due to its ability to provide a deeper understanding of the research subject. We believe that the real-life factors are highly pertinent to the study of the CRM phenomenon.

According to Stake (1995, p.135), a qualitative case study is highly personal research. The author claims that researchers "are encouraged to include their own personal perspectives in the interpretation. The way the case and the researcher interact is presumed unique and not necessarily reproducible for other cases and researchers".

According to Punch (2000), qualitative or quantitative research can be descriptive or explanatory (or both). In descriptive research we focus on collecting, organising and summarising information related to the studied topic. In our case, an explanatory study is proposed. This kind of study is related to research questions that ask "why and how". According to Punch (2000, p.38), such research is focused on "making complicated things understandable, but on a different level. It aims to find the reasons for things, showing why and how they are what they are". We are developing a theory-generation

study. Punch (2000) explains that such research is typically qualitative and starts with questions, moves to data and ends with a theory.

A critique that addresses interpretive studies is devoting much of their allotted space to substantive contents of their research topic, and only a little to their own research conduct and method (Walsham, 2006). In order to offer some detail about how the research was conducted, the next part presents the research design.

4.4 Research design

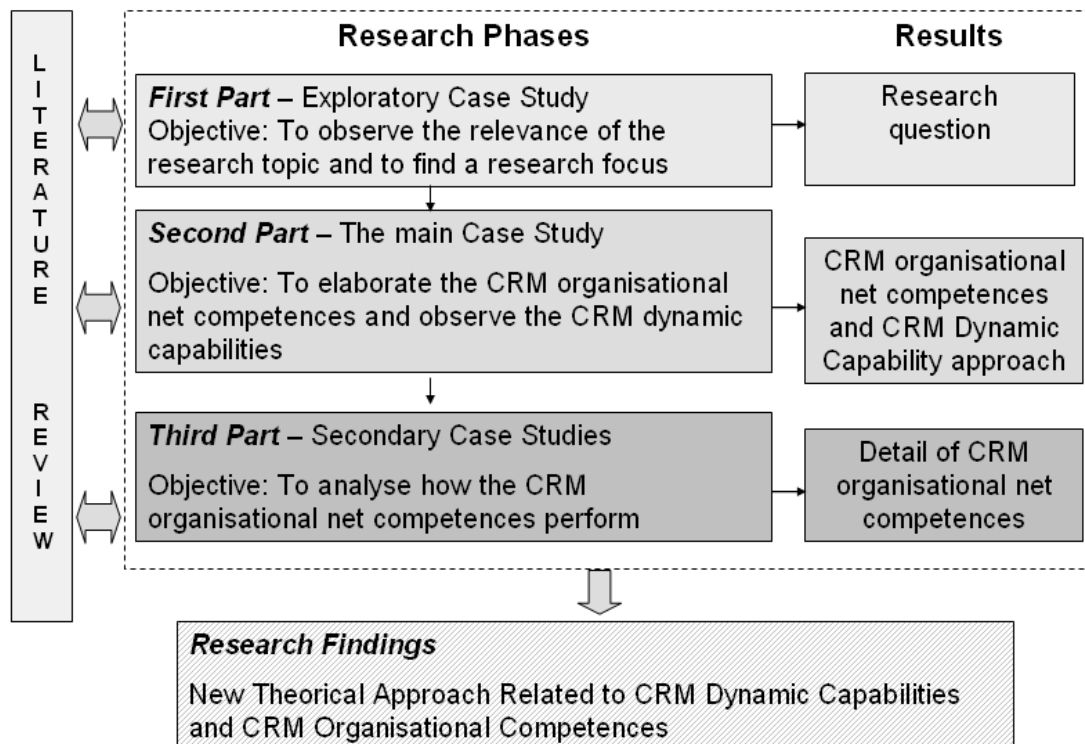
We have selected five cases from different sectors. The reason is that these companies face capricious markets, global competition, and customer pressures. Therefore, companies in these competitive sectors have been investing in CRM strategy over the last few years. The chosen companies represent “critical cases”. According to Miles and Huberman (1994), this kind of case allows for logical generalization. Moreover, the companies in question have adopted the CRM strategy for at least 5 years. This pre-requisite is important for the analysis of the organisational dynamic nature and the evolution of CRM stages.

According to Walsham (2006, p.322), the process of gaining access entails “strong elements of chance, luck and serendipity”. In our case, the first company allowed a deeper involvement, and in the others it was possible to make appointed interviews.

4.4.1 Overall strategy

Following Walsham’s (1995a) recommendations about the importance of establishing credibility to the reader, we describe the way the empirical research was conducted in detail. A research design is shown in Figure 8, with the three parts.

Figure 8. Research Design



In the first part of this research, a literature review and an exploratory case study were conducted to help to define the research focus and research questions. This exploratory case study was conducted in a Brazilian telecommunication company. Stake (1995) claims that qualitative research establishing back grounding, acquaintance with another case and first impressions are of paramount importance, prior to initiating the main study. As a main reason to conduct exploratory case study, Butler (1997, p.938) cites the interest for further exploration and “the little in the way of a homogenous code of procedures for the demonstration of correctness” related to a specific social phenomenon. These characteristics are the main reason for conducting a first case study.

The literature review and an exploratory case study contributed to the construction of the check list for interview. This check list was analysed by academics and practitioners, and was adjusted according to their comments.

After the exploratory case, we conducted a multiple case study in Portuguese enterprises. This part of the research was executed in two phases. The first one involved a telecommunications company; this was the main case study of this research. In the first company we collected data over one year (from February 2007 until March 2008). In the second phase, four more case studies were researched (three companies in the communication sector and one company that supplied petroleum, petrochemicals, and several types of fuels and lubricants). These companies were chosen because they were facing market pressures, had a large customer base, had been significantly investing in a CRM strategy, and were using CRM technology. Although we considered all cases relevant, the objective of the second phase was to understand, in detail, companies' CRM initiatives and related organisational competences and capabilities.

4.4.2 Data collection method

These multiple in-depth case studies were based on semi-structured interviews, which were used as the primary source of data collection, plus document analysis. Through the use of case studies, it is possible to ask penetrating questions, to capture the richness of organisational behaviour, and to provide more complete explanations about the phenomena under research.

Interview process: All participants were interviewed individually on a face-to-face basis. Their anonymity is preserved. The interviews took place in the companies and they lasted between 1 and 3 hours. The duration of interviews depended on the availability of the respondent and his/her interest for the research topic. A semi-structured script guided this process (Appendix A). This structure was flexible; as new topics emerge, we explored them new topics and used them in other interviews. The researcher recorded each interview, when an interviewer allowed it, for transcription

and analysis purposes. If the interviewer did not allow their voice recording, the researcher took notes of the conversation.

According to Walsham (2006, p.323), interviews are “a part of most interpretive studies as a key way of accessing the interpretations of informants in the field”. Following Walsham’s (2006) recommendations, we started each interview explaining the purpose of the research and reassuring the interviewed of the confidentiality of the information. In order to help the interviewee to relax, we started by broaching a non critical issue. Walsham (2006) explains that this strategy improves the quality of the interview process in terms of honesty of response for example.

Most of the interviews were recorded. According to Walsham (2006), there are advantages and disadvantages in applying this kind of procedure.

Table 13. Advantages and disadvantages of recorded interviews

Advantages	Disadvantages
A precise record of what was said compared with the taking of notes during the interview, no matter how extensive.	It is a very time-consuming and/or expensive to transcribe and then extract themes.
It is possible to return to the transcript later for alternative forms of analysis	It may make the interviewee less open or less truthful.
It is useful for picking out direct quotes when writing up	It does not capture the tacit, non-verbal elements of an interview.
It frees the researcher to concentrate on engaging with the interviewee	

Source: Walsham (2006)

Even though respondents might have been seriously inhibited by the presence of the recording machine, we tried to create a relaxed atmosphere during the interview. If an interviewer was not comfortable with the situation, the recorder was turned off.

The respondents were selected on the basis of their involvement in CRM adoption. In each company, CRM managers from IT, Marketing, and Human Resources were

interviewed. The number of interviews held varied according to the organisational structure of the enterprise. We aimed to hear, at least, the Marketing director, IT director, CRM project manager, Human Resource manager, Sales director and some salesmen. The objective of these interviews was to capture the feelings and participants' perception on CRM initiatives.

Documents collection process: The supplement of interviews in an interpretative study, according to Walsham (2006, p.323), may include: “press, media and other publication on the sectorial context of the organisations being studied. Internal documents (strategies, plan, and evaluations). Web-based data from e-mails, websites or chat rooms can be very valuable. Finally, surveys can be a useful complement to other data sources”.

All documents about CRM projects available in the market were collected. In addition, some documents were asked to companies regarding their CRM initiatives. Some of the interviewees had previously prepared a complementary material related to CRM project, others sent some later. Other secondary materials were taken from the company's website and media.

4.4.3 Data analysis method

In order to report our interpretation related to the case studies, we followed some steps. Stake (1995, p.71) claims that for a qualitative researcher there is no particular moment when data analysis begins. According to the author, analysis “is a matter of giving meaning to first impressions as well as to final compilations”.

According to Darke et al. (1998), the main goal of interpretative research in IS field is to produce an understanding of the contexts of IS, and the interaction between the systems and the contexts that they are inserted into. According to the author, the critical

point of analysis is the strength of the explanation of the phenomena, based on the interpretation of data.

These multiple sources of empirical evidence helped us to achieve a broader range of CRM project issue in each company. Moreover, we were able to triangulate the same aspect from different perspectives. We used two types of triangulation: (1) data triangulation - because we used a variety of data sources in a study (interviewing people with different status and with different points of view), (2) methodological triangulation - as we used multiple methods (interviews and documents). According to Yin (1994), this characteristic responds to potential problems of construct validity. In our case, we were mostly interested in observing different interpretations of our interviewees.

During the case studies we noted down impressions after each interview, and tried to register some feelings that could not be observed in the recorded voice. All collected data was organised in a database. Data management is important for qualitative researchers, as large amounts of data come from various cases (Miles and Huberman, 1994).

The data was coded and analysed by the use of a software package for qualitative data analysis – *NVivo* (Appendix B). This software facilitates structuring data without losing much information. The data was put into *NVivo* and each paragraph was coded. *NVivo* helped to structure the data, according to the dimensions suggested by the research framework. The structure of the framework was introduced in the index system of the software package. *Nvivo* provided good searching and browsing facilities. It helped in selecting and comparing statements about a given topic.

According to Walsham (2006), this kind of software has some major disadvantages; the researcher consumes a lot of time, generating themes and making data-theory links. After using the software for a long time we perceived that we were forced the fit the

data in the previous themes, and we were not thinking in depth about the cases. However, some analysis of the data was also conducted through the use of more traditional processes, using the search facilities of the word processor and tables highlighting the most relevant issues (as suggested in Miles and Huberman, 1994). Then, the analysis strategy was changed so that the software *NVivo* was used just as a resource to organise and store data.

The time spent transcribing the data enabled the researchers to gain a deep knowledge about the statements provided by each interviewee, making them easier to find, analyse and compare.

In order to analyse the evidence collected in case studies, we transcribed all interviews, read and re-read them in order to code for emergent themes related to organisational competences and capabilities. In the use of qualitative techniques such as content analysis, it is important that the researcher analysing the data allows themes to emerge naturally, rather than to impose a preconceived set of themes on the data. We adopted the “content analysis” approach for the data interpretation proposed by Bardin (1977). The author describes three basic steps for empirical data analysis: (1) pre-analysis - to organise data; (2) exploration of collected material - to codify data according to previously established categories; and (3) interpretation - to elaborate theoretical and pragmatic conclusions about the case, considering earlier theory.

We used the Dynamic Capability theory to help us analyse CRM adoption. Another theory that appears to be relevant in order to gain insights from our field data is “Value-Focused Thinking Approach” presented below. This theory allows for better observation of the CRM competence in the company and also provides a link with the company’s values.

After the analysis and conclusions were elaborated, the last recommendation related to methodological steps refers to feedback for research participants. Walsham (2006) recommends providing a kind of feedback for all research participants. In our case, a CRM conference day was organised at ISEG and we provided a special presentation related to the main research contributors. A personal invitation was sent to each interviewee.

4.4.4 Using Value-Focused Thinking Approach

In order to deeply understand the competences that are demanded in a CRM business approach, we introduce Keeney's ideas (1992) on "value-focused thinking". According to this author, values are principles for evaluating the desirability of any possible consequence, and are hence essential to assess the 'actual or potential consequences of action and inaction' in a given decision context.

Keeney (1994) argues that strategic thinkers have long admitted the need to clarify values. Companies that have adopted CRM are looking for close relationships with their customers. Therefore, in many cases, the organisations have either mission or vision statements, or a list of organisational goals related to CRM initiatives. However, critical factors of CRM success such as "alignment among organisational mission, vision, goals and technology" (Ryals and Knox, 2001), "redesigning business processes" (Rigby et al., 2002); "training program" (Raman et al., 2006); "top management commitment" (Winer, 2001), and "long term orientation" (Peppers and Rogers, 2004) may seem vague. They can only provide guidelines for the enterprise. Values, sometimes embedded in organisational goals, need to be made more explicit, in order to help employees perform their tasks.

What are missing in most CRM adoption projects are a philosophical approach and a methodology to understand and articulate the individual competences involved in a customer relationship. One way to overtake this problem is to focus on the values that guide the CRM adoption initiative.

Keeney (1992) indicates that we can identify our values by deep thinking. The goal is to make values explicit through statements expressing value judgments. In these situations, the group's values should truly reflect the values of the individuals in it. Keeney (1992) claims that when people think about values, in the first moment conscious ones are listed, but identifying subconscious values is also possible. This activity serves to uncover hidden objectives that people want to realise.

An objective is “a statement of something that one wants to strive toward” (Keeney, 1994, p.34). In a strategic business approach like CRM, companies have a set of goals. As simply listing them is shallow, Keeney (1992) proposes a way to present objectives in a clear structure. In order to do it, he distinguishes between two types of objectives, both of them context-dependent: (1) fundamental: the ends objectives and (2) means: the means to attain the fundamental objectives.

The author proposed a way to identify what the fundamental objectives are and how to link the means-ends relationship. “Why Is That Important? (WITI) test” helps us to separate means objectives from fundamental objectives and to establish their relationships. If the answer is: “one of the essential reasons for interest in the situation”, we deal with a fundamental one. Otherwise, if the answer is “It is important only because of its implications for some other goal”, we have a means objective.

Listing all organisational objectives and observing the stakeholders' goal is crucial. Especially in a CRM business approach, customer objectives are important in order to understand whether or not it is possible to develop a close and frugal relationship. In the

same sense, it is vital to make employees' goals explicit, since they will guide employees' individual competences to be expressed in their routines, which can improve or destroy the relationship between a company and its customers. Keeney (1992) claims that although companies' and employees' objectives are frequently not explicitly written down, these goals guide all decision making (organisational or individual). Separate decisions made over time are the means by which strategic objectives are pursued, and developing a right competence can help to achieve these goals.

In order to accept the CRM philosophical view, the employees have to share Relationship Marketing values to obtain some results from synergy effect. In this case, individual values are expressed by the internal motivation to use and increase individual self competence to improve the relationship with a customer. Understanding socio-organisational aspects and stakeholders' values is fundamental for a CRM implementation initiative to be successful.

4.5 Conclusion

In this chapter we discuss the adopted philosophical perspective and research strategy. Among different philosophical perspectives we express our familiarity with phenomenology statements.

Several research methods can be applied while researching IS area. We choose multiple case studies. In order to analyse the data collected we have used two main theoretical approaches: Dynamic Capabilities and Value Focus Thinking.

CHAPTER V

The Exploratory Case Study

5.1 Introduction

The main goal of this chapter is to present the exploratory case study on CRM adoption. This case study was conducted in a Brazilian telecommunication company. This company had adopted CRM since 1998 and the exploratory case study was conducted in August and September, 2005. We had two major sources of data collection: interviews and the analysis of secondary data. We interviewed four managers, three in the city of Porto Alegre (in the state of Rio Grande do Sul) and one in Brasília (the capital of Brazil). Each interview lasted between 2 and 3 hours. In order to describe this case study, we use the framework proposed by Pettigrew, adopted later by Caldeira (1998). This framework is just used in the exploratory case study due to the need to have a broad perspective to understand the organisational phenomenon under study.

This chapter is organised in four sections. In the following section we contextualise the telecommunications sector in Brazil, afterwards we briefly describe the framework used for data collection and analysis, and present the case using Caldeira's (1998) framework. In the fourth section, we draw conclusions related to this case and show how this empirical part helps us continue conducting the research project.

5.2 Contextualisation of the Brazilian Telecommunication sector

The Brazilian telecommunication sector has experienced a set of modifications in the last ten years (Carneiro and Borges, 2002). The land line privatisation process and the strong presence of mobile phone network totally changed the telecommunication

market, and resulted in thousands of Brazilian citizens being able to use this technology. In general, the telecommunications structure and the privatisation of telecommunications companies changed the economic market model into free competition among national and international companies. In order to face globalised market conditions and try to obtain a good competitive position, companies pass through acquisitions and fusion processes.

Anatel, the governmental institution of telecommunication regulation in Brazil, plays an important role. This body is responsible for taking care of Brazilian citizens' rights, supervising the quality of service offered by companies, and observing if they respect the cultural, law and ethical issues of the population of Brazil. The creation of Anatel in 1997 formed part of the structure facilitating privatisation and preparing the market for competition. According to Carneiro and Borges (2002), the main idea was to establish rules for the future of the telecommunication market.

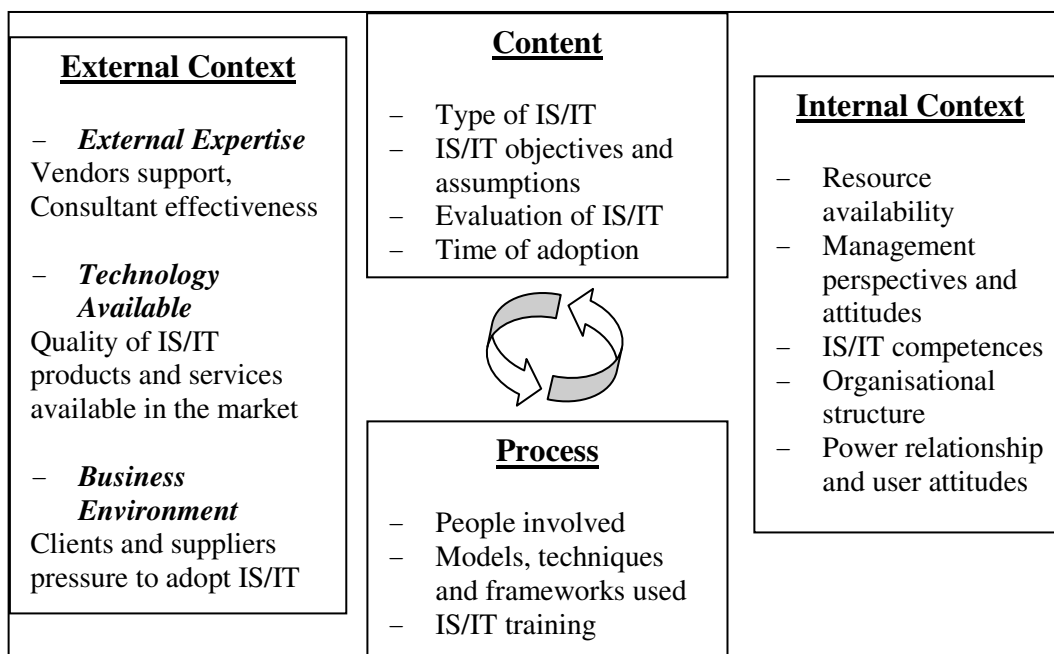
Nowadays, telecommunications companies are trying to make the relationship with a customer a competitive advantage. This goes beyond offering a complete product and service portfolio. The Relational Marketing is perceived as a way of distinguishing a company in this market, and information technology is widely explored in order to deal with all customers.

Fonseca (2001) observes that marketing departments in telecommunications companies explore CRM as an important tool for obtaining customer loyalty. In 2001 Peppers and Rogers Group observed that the increase of CRM adoption in Brazil was a result of a telecommunications goal of identifying customers and trying to offer a differentiated product and service. Sigma Telecom (a fictitious name) was operating in such a context in 2005, when the exploratory case study was conducted.

5.3 The framework of analysis

Caldeira (1998) proposed a framework to analyse IS/IT adoption, based on Pettigrew's research. There are four dimensions (content, internal context, external context and processes) to be observed. This framework appears to be interesting for the exploratory case study, because it is broad and attempts to perceive the way different IS/IT factors determine relative success of a technologic adoption. The Figure 9 shows the framework of four dimensions.

Figure 9. IS/IT factors framework



Source: Caldeira (1998, p. 29)

In order to understand the phenomenon of CRM adoption in Sigma Telecom, we analysed the relevant elements of each framework's dimension.

5.4 Exploratory Case Study discussion

Sigma Telecom is one of the most important companies in the Brazilian market. Nowadays, this company has six thousand employees, and operates in nine Brazilian

states. The company works with four different kinds of customers: residential and public attendance, enterprise customers, government and corporations. The CRM adoption took place in the year 2000, in all the branches at the same time (big bang strategy).

One of the most important reasons for adopting CRM was a merge process in the organisation. Sigma Telecom emerged from the acquisition of several companies. Each company had its own culture, organisational structure and information systems, therefore systematisation of a way to connect all the parts in order to create a new company was crucial. According to a manager interviewed, it was important at the time to “sew a patchwork quilt”.

The main goal of CRM adoption in Sigma Telecom was the establishment of a unique working model for all the enterprises. The selected technological artefact was the main mechanism to systematise the way in which the company would maintain its relationship with customers. The top managers were concerned with the cultural diversity of Brazilian regions, where the CRM system would be used. CRM information system adoption was viewed as the biggest technological initiative in the company, and with repercussions in the whole organisation.

5.4.1 External Context

Outsourcing customer services: the shops - Sigma Telecom has its sales (shops) in an outsourcing regime. Each shop is a point of contact with a customer of Sigma Telecom, and it is classified according to a set of criteria, such as number of certified employees (employees who have participated in a training program related to the company's products and services), sales potential, invoicing, and physical structure.

Until 2003, Sigma Telecom had had another business model of customers interacting. The company had had its own structure, without outsourcing partners. The

old model brought problems such as the insufficiency of employees in customer care, and the strong connection between the salesperson and the customer. The company was dependent on a salesperson, and in the majority of situations the company lost a customer whenever the salesperson was on holiday or changed job. Customers are more satisfied with the new company sales model.

However, the relationship between Sigma Telecom and its customer became more dependent on the partner. Sigma Telecom had to transmit its philosophy to the partner. The company created a special job, which was to supervise the shops. Such employee observes how each partner manages his/her shops and deals with customers. In 2005, the company's plan included implementing the CRM software system in each shop, in order to maintain a unique information system and improve control of the customer database.

The desire of the Sigma Telecom managers was to consolidate a business-to-business relationship with their shop partners. Sigma Telecom was constantly defining strategies for their partners, and also defined goals related to customer services and sales. Sigma Telecom was also concerned with transmitting the company values to sale agents - because the end customer must recognise just one company - in this case, Sigma Telecom.

Outsourcing customer services: call centre - Sigma Telecom outsources its call centre service to only one company. The attendants are physically situated in one Brazilian state. The service is divided in two main parts: (1) call centre to attend residential customers and (2) tele-consultancy to deal with the enterprise market. This contact channel is responsible for providing offering services, complaints and promoting a large part of active sales aimed at residential customers.

One of the problems highlighted by an interviewed manager is that this channel damages the relationship with customer. The operators repeat phrases according to a given pattern and they are located a substantial distance from a customer's needs and often ignore the customer's cultural context. Sigma Telecom cannot manage these operators more closely. The manager concludes that: "(...) the call centre sale is very impersonal. It is just an Attendant Post (AP) that sells something, but this AP does not have a name".

Government - The Government is a relevant actor in this context, mainly for Anatel, which is responsible for regulating telecommunication services in Brazil. The so-called Procom is another actor that protects the consumers against any kind of Sigma Telecom negligence. The Government also cooperates with Ministry of Public Relations, Ministry of Communication, and Ministry of Telecommunication in order to promote sector regulations. According to an interviewed manager, the Government is the one that provokes structural changes inside the company.

Customers - Customers are classified into diamond, gold, silver or bronze according to their invoice. According to the interviewed managers, the customers are the major beneficiary within CRM initiative. Their arguments justifying this statement are related to its history in the telecommunication sector, technical capacity, quality services, different products and services (ADSL - Asymmetrical Digital Subscriber Line, mobile, land line, etc.), good price, and a customised offer.

Shareholders - The main shareholders define the marketing conditions in which the company can operate. Each change in a direct consultation means deeper changes in the strategic plans of the company. Such a case poses a problem for CRM projecting, since the CRM requires a long term view, and more than one CRM actions in the company have already been interrupted.

5.4.2 Internal Context

Power relations - It was evident in managers' responses that the acquisition of CRM software involved power relations, and that the process itself was not conducted in the company with transparency. Only IT sector and top managers were involved in the acquisition processes. Employees from other sectors, such as marketing, commercial, human resource, etc., were simply obliged to incorporate the system in their routine.

Another relationship that demonstrated "power" paid respect to Sigma Telecom and its shop agents. The shop agents had ambitious product- and service-selling goals to achieve in order to maintain the partnership with Sigma Telecom.

Organisational structure - The company is organised in nine subsidiaries (one in each Brazilian state) and the enterprise matrix is strategically positioned in the capital of Brazil. Each subsidiary is organised in four markets: residential and public attendance, enterprise customers, government and corporations. Until 2005, each market had had its own customer relationship model and technological structure. The government and corporation markets are considered most valuable for the company, because they generate the biggest part of company's billing. In 2005 these markets, where no service was outsourcing, already had CRM software adopted and the sales team was aligned with relationship marketing values.

Some problems related to internal structure were pointed out by interviewed managers: (1) a partial view related to customers - the company cannot identify a customer who belongs to two markets; (2) selling opportunities are lost with those customers who are between the two markets. This four market classification is not well perceived by the managers; (3) communication among different markets does not exist. In 2005, a pilot test with a new market structure was conducted. Such a new arrangement would take the following markets into consideration: support and sale,

direct and indirect channel, customer fidelity and retention, and traffic. The intention was to improve this model before proposing it to all the subsidiaries.

The information technology sector was totally centralised in the enterprise matrix. There was just a small group of information technology employees responsible for specific problems related to IT questions in each subsidiary. The interviewed managers disagreed with the position of the IT sector, because they feel that CRM software has not been well explored.

Internal communication - An interesting internal communication aspect is related to informal communication among employees that work in different customer markets. As they have a partial view of a customer, they normally make a non official arrangement among the employees in order to attend to customer demands. In other words, they must break company rules in order to establish a good relationship with their customers.

Another important aspect of internal communication refers to the relation between marketing and commercial sectors. The commercial sector is responsible for recognising customer needs, as they work directly with customers. The marketing sector plans strategies that serve to develop a better relationship. When both of these sectors are totally aligned in relation to a customer strategic plan, they call the IT sector to request adequate information technology to support their plan. At Sigma Telecom, the IT sector does not have a proactive role in customer relationship strategy.

Top managers - Each Sigma Telecom subsidiary has a group of managers. They are in constant contact with enterprise matrix managers and they are valued for establishing invoicing goals. In order to achieve these goals the subsidiaries' top managers must take into account distinctive characteristics of their state, and adapt the main strategies (and customer relationship models) to the specific context.

IS/IT competences - The IT department provides support to other departments (like marketing, sale, financial, etc.) in a company. According to the interviewed managers' view, the IT department is not preoccupied with understanding the telecommunications sector and the way the IT tool can strategically help the business. In other words, the IT department at Sigma Telecom is reactive and operational.

The company has a set of IS being adopted at the same time. The CRM software was adopted in the company and the interviewed managers claim that business people do not use the system to its limits. The managers believe that the main reason is the distance of the IT department's location. The manager of Rio Grande do Sul subsidiary contracted an IT professional to improve the exploration of the CRM system and project secondary solutions. Critiques were also made concerning CRM software training, poor material and inadequate language.

The quality of customer database is a problem for a company. Data from legacy systems (from different enterprises) were cleared to be used in a new customer database. This was a strong, slow and expensive process. In order to facilitate the implementation of CRM, some software routines were being avoided for a short period of time. One of the interviewed managers said that the employees "changed the car tyre with the wheel running". The result was a poor customer database loading.

All these questions result in the creation of customer information islands, auxiliary of software, and in some cases, sales people continuing to store customer information on paper just for individual consultation.

Relationship competences - A new customer relationship model was created from a synergic work of marketing and sale department. This model aims to separate a group of customers according to characteristics such as invoicing, route traffic, number of employees in the company, and product and service profile. The idea is to join

customers with the same values and behaviour, and not the same geographic region or sector actuation (in the case of enterprise customers).

Although managers possess the knowledge of relational marketing concepts, they wonder why putting these concepts in practice is so difficult. They argued that CRM needs information systems, customer databases and raises questions of governmental regulations, and other relevant issues. One of the managers stated that, in 2005, no Brazilian company could successfully develop a good CRM program.

5.4.3 Process

CRM implementation project plan - The CRM software implementation project was divided into four phases. The first one started in August 2001, and its main goal was to implement the software in a Call Centre department. With the feedback from the Call Centre employees, the software was customised and the implementation process would continue. The last two phases involved the implementation in other customer segments. The interviewed managers defined the employees' resistance as one of the main CRM software implementation problems.

The interviewees also argued that the CRM project has been the biggest project at Sigma Telecom involving all enterprise departments and a set of technological and consultancy supplier companies.

Human resource training - The interviewed managers argued that the CRM adoption project takes into account human resource topics, mainly because a top manager knows that organisational culture is important to CRM success. It is crucial to highlight that this company was originally a monopoly and it also went through a fusion process among various companies. People in the company needed to shape their cultural identity and incorporate CRM values.

Parallel to the technological CRM project, Sigma Telecom conducted a behavioural project to encourage relational marketing values. It included customer communication and customer involvement, administration changes, and training program. The main goal was to make employees sensitive in relation to a close customer relationship issues.

In order to propagate CRM values among all employees Sigma Telecom used a “cascade strategy”. The main idea was to formulate a group of influential people to conduct a change of routines and values in each department. The process finished when the whole organisation was mobilised, and each employee understood that his/her director supported CRM initiatives.

5.4.4 Content

CRM adoption objective - Sigma Telecom established more than one goal linked with CRM adoption. The company believes that this strategy can help them to continue being competitive in a telecommunications market, and may allow for integration among different companies (culture, structure, values, routine, processes, etc.) in order to offer a unique view to a customer. This adoption must also help the company change its organisational focus from product to customer. Finally, it is important to try to obtain information related to the relationship between seller and customer, because when the sale person is not available, the company needs to maintain this relationship.

We observe that the interviewed managements emphasise relational marketing questions in their arguments, but in reality the company continues to be focused purely on the sale of product and services. Even though CRM software implementation had started in 2000, in 2005 the company did not have the technical conditions to maintain an individual relationship and establish their relational models with customers.

Implementation timetable - The CRM software implementation timetable was initially forecasted for 15 months. In 2005, four years after the beginning of CRM

software implementation, the information system was not fully implemented. The main problem was to implement the software in the shops which are Sigma Telecom partners, and attend customers directly.

Benefits management - We could observe that the goals established with CRM strategy do not exist; the interviewees argue that CRM adoption is the only chance for maintaining the company's presence in the market. Apart from that, Sigma Telecom had objectives related to CRM software implementation. Neither in 2003 nor in 2005 did the interviewed employees transmit any benefit management plan related to CRM.

Organisational change - Traditionally in Brazil, telecommunications companies were orientated to engineer areas without paying much attention to the commercial department. The shift in the enterprise's focus from product to customer required organisational culture changes to incorporate CRM values.

According to one of the interviewed managers, the main problem was to pull an employee out of a comfortable position. In the last ten years Sigma Telecom has gone through many organisational changes (acquisition, fusion process), it demanded a set of modifications such as (1) changing organisational process, (2) changing or adopting new information systems, (3) changing routines and organisational rules, etc. The interviewees claim that all these changes resulted in an uncomfortable position for the employees and a poor organisational atmosphere that could damage the relation with a customer.

5.5 Conclusion

This chapter aims to investigate an empirical situation where CRM was relevant. We describe Sigma Telecom's reality considering the four dimensions of Caldeira's (1998) framework. As we had the opportunity to conduct an exploratory case study in

the same company that we had already studied before (Pedron and Caldeira, 2005), we could observe a set of relevant issues to include in our main empirical part of the research.

In relation to CRM adoption goals we observed that Sigma Telecom partly corroborated the literature arguments, but the company also had its contextual objectives with CRM initiative. We verified that technological questions were critical to this company, but beyond all, organisational questions (e.g., cultural, values, motivational, etc.) became really crucial.

Many topics have emerged from this exploratory case study. It was possible to observe that a deep study related to the way organisations combine their assets in order to have a new information architecture, new employee's profile to deal with customer, new organisational processes, and other company's CRM characteristics is needed. After this case study some questions were pointed to be explored in this research: (1) how do the stakeholders influence CRM strategy in a company?; (2) how to manage a company that results from fusions and acquisitions of other companies in order to offer an integrated image to a customer?; (3) how to manage employees that must learn every day and pass through different organisational change processes (new processes, new technologies, new values, etc.)?

These questions and other characteristics described in this case helped us to formulate the research question and enabled the improvement of check list for interview to the second part of the research.

CHAPTER VI

Case Studies Summaries

6.1 Introduction

The multiple case studies were developed in two phases. The companies received fictitious names (Alfa Telecom, Beta Energy, Gama Telecom, Delta Telecom and Omega Communications) in order to protect their identities.

Phase one includes the deepest case study in our research. We collected data in the company for one year (from February 2007 until March 2008). Twenty five managers of the firm were interviewed by means of semi-structured interviews in order to identify the most relevant characteristics related to CRM competences and capabilities. The interviewees included: a member of the board of directors, the Chief Information Officer (CIO), the CRM project champion, call centre manager, quality manager, processes manager, and several other managers in information systems, sales, and marketing. In order to complement these data, we collected and analysed some documents from the company.

The second phase of empirical work aims to observe CRM initiative in other Portuguese companies. In order to receive new insights related to the CRM competences and capabilities verified in the first case, we held some interviews and collected secondary data. In this section, we describe our perception of each company and their CRM projects, respectively. Table 14 presents a brief summary with contextualisation data related to the case studies.

Table 14. Case studies summaries

Question	Phase 1		Phase 2		
	Alfa	Beta	Gama	Delta	Omega
Fictitious Name	Telecom	Energy	Telecom	Telecom	Communications
Sector / Industry	Telecommunications	Energy	Telecommunications	Telecommunications	Communication
Number of Employees	32000	5798	1150	20	1500
First CRM project	2002	1998	2001	2006	2003
CRM software	Siebel and a software developed in-house	Siebel	Siebel	SugarCRM	SAP CRM (in one of the firm of the group)
Number of interviewees	25	4	3	2	10

Here we present our understanding of the interviewees' approach and other collected data. Except for Beta Energy, all the companies comply with the rules of ANACOM¹. This regulatory body has the following objectives: to promote competition among electronic communications networks and services; to contribute to the development of the domestic European Union market, and to protect citizens' interests. The companies must also recognise the Competition Authority². Its main objective is to ensure respect for competition rules towards an efficient market, efficient distribution of resources and consumers' interests.

In the following part, we describe the five case studies. First, we describe the company and present our understanding related to the CRM company perspective. Afterwards, we describe the company's initiative to customer care and how the IS department is organised to help CRM strategy. We finish each case description referring to what each company has learned from CRM over time.

¹ (www.icp.pt)

² (www.autoridadedaconcorrenca.pt)

6.2 Alfa Telecom Case Study

6.2.1 General description

Alfa Telecom is a large Portuguese telecommunication company. The company has a diversified business portfolio, which covers telecommunication activities such as landline, mobile, multimedia, data and corporate solutions. This holding is present in Portugal, Brazil, and several African countries.

The company turnover, in 2007, is slightly above 6,000 million euros, and EBITDA (Earnings Before Interest, Taxes, Depreciation and Amortization) of 2,300 million euros. The holding company employs around 32 000 people (source: internal company report).

Alfa Telecom has participated in a very dynamic market. In 2006, the biggest company of the holding received a Public Tender Offer, which was rejected by the shareholders. In the same year, another company of the holding passed through a spin off process, which reinforced the competition in the country.

After these changes, the dynamics of the company's internal environment changed and the top managers have been trying to reorganise the company in order to quickly return value to the shareholders, customers, suppliers, employees and other stakeholders. The managers are concerned with the fast evolution of the telecommunications sector and the future competition of the domestic market, which now has a new competitive company. CRM initiatives - such as customer care and retention programs - have been planned in the company.

Following this case background about the holding Alfa Telecom, we focus the data collection and analyses on its land line telecommunication company.

6.2.2 CRM perspective

Alfa Telecom adopted a CRM business approach in the year 2002. The initiative was an answer to market changes and the need to improve competitiveness. The sales manager claims that twenty years ago the company had people that paid to receive the telecommunication service and nowadays the company has customers. She highlights that these customers have more information and more demands each day, and “the information and knowledge paradigm change the telecommunication sales scenario”.

Initially, a group of people was formed to develop a CRM project. Some people with experience in CRM implementation in the telecom industry were hired by the firm. A consulting CRM company was also contracted out to help the company. The main objective of the CRM adoption team was to change the company mentality (strategy, culture, structure, processes, routine, etc.) from a product orientation to a customer focus.

In the first years, top management delegated power to CRM groups and supported them in order to introduce new ideas in the company. One CRM manager said that top management support was crucial in the first years of CRM in the company: “Some important changes must have been introduced and without this support they would not have been possible”.

Since the introduction of CRM initiatives the company had had three different CEOs (Chief Executive Office) with different perspectives on the relevance of CRM to the company. Due to this, changes were forced on the location of CRM within the organisational structure and on the importance of IT in CRM adoption.

The IT manager believes that “Probably there are more than 30 concepts related to CRM in this company”. Although some of the managers in the CRM area claimed that CRM means a philosophic way of treating customers in order to help a company

maintain a good relationship with customer and not the technology. It was possible to observe a strong effort made in relation to technological aspects while little importance was given to customer relationship issues. According to the customer relationship manager, CRM is the organisational capacity of becoming familiar with the customer (name, needs, behaviour, products consumed, etc.), in order to differentiate him/her from other customers and to offer a personalised solution (product and service).

The customer contact channel manager argues that “Generally, CRM is whatever people wish to do with it”. She says that in her sector CRM has an operational meaning; for example, CRM concept is used for customer value segmentation. The meaning of CRM is also a relevant question for the organisational processes manager. She describes a confusion related to CRM software. “Here in this company people buy CRM software in order to improve the interface with customer and think that we have CRM adopted”. CRM is more than software for her; it includes all the organisational activities and processes related to customer interface.

One of the IT people stated that the little attention paid to a customer is related to country cultural issues. In general, people in Portugal are, according to the interviewee, “accommodating and accept any kind of treatment”. Following this stream of thought, he observed that the telecommunications regulation’s office in this country does not demand a high level of customer relationship quality in comparison with other European countries.

According to the IT expert, for a company keeping a relationship with a customer means to a company: “to guarantee that a customer will receive good assistance, to be satisfied and generate profit for a company”. For a customer, a relationship with a company means “to be well taken care of and to be provided with the best solution for what he/she is looking for”.

6.2.3 CRM business processes

According to the interviewees, the customer relationship departments have been receiving more attention in the last years. Alfa Telecom has a large customer base, which shares in residential and business customers. Despite a very complex path related to the customer relationship, the company knows that it must improve customer relationship capability. The employees need quality customer information and must have the competence to deal with this information, in order to maintain a profitable relation with customer, claims one interviewee. CRM is an important project in the company; it now focuses in the adaptation process of customer's platforms to the new market reality.

In the very beginning of the CRM project, Alfa Telecom contracted Peppers and Rogers Group as its CRM consultant company. This consultant company developed a CRM implementation methodology that followed four steps: (1) identifying and knowing customers, having information available for characterising each customer's needs; (2) differentiating, creating solutions suitable for each one's needs; (3) interacting, improving communication with the customers to understand their needs; and (4) personalising, respecting each customer's individuality.

Alfa Telecom customer relationship department is organised in four teams, based on the CRM implementation steps proposed by Peppers and Rogers Group. The first team is responsible for CRM operations. This team identifies customers according to a previously defined customer data model (e.g. if the customer uses service in the morning or at night, voice service or data service, etc.). This team also offers customer target lists according to marketing campaigns and deals with customer answers obtained in a specific campaign in order to generate customer knowledge. Various internal departments of Alfa Telecom, such as commercial area and production, are operational

CRM team's clients. The second team is the analytic CRM. People from this team elaborate analytic models (up sell, cross sell, churn, etc) in order to help commercial actions such as informing sales operators of what the "next best activity" is for each customer. The third team is responsible for defining and calculating customer value and organising different segments. The last team was created in order to transform employees' ideas about customer relationship (and organisational processes, etc.) into new organisational methodologies, routines and techniques. People from this team create the environment appropriate for the emergence of such ideas (brainstorm) and make a financial evaluation to test the idea's viability before putting it into practice.

Another important issue related to customer care is communication. According to the company annual report, communication with customers is a priority for Alfa Telecom. The company offers a diverse range of communication channels, such as: customer portal, website, shops' and agents' network, commercial managers, employees, a call centre, focus group, satisfaction surveys, advertising campaigns, and a newsletter.

We interviewed the call centre manager in order to listen to his opinion related to quality services and evolution in Alfa Telecom's call centre. He explained that the call centre is in an outsourcing regime, and, although Alfa Telecom knows that operators receive technical and behavioural content during the training program, this part is also the responsibility of a partner enterprise. For people that work in "out bound" positions, such a training is short because they only need some explanations on how to use the system and how to follow the script guide while talking to a customer. These operators receive a list of customers' names and the products' characteristics that they sell. The operators that work in "in bound" positions receive more attention because of the complexity of the task. They have more information about customers and in some cases

they know customer value and use the “next best activity” technology developed by the customer relationship department.

The call centre manager would like to have an integrated information system with the register of all interactions between customer and the company (regardless of the company contact channel that a customer used). He argued that the company nowadays is not well evaluated by customers because the operators are not multi-tasked and the organisational structure is not well prepared to respond to customer requirements.

The call centre manager agreed that the company must improve the development of products, whereas the organisational processes are not a problem. In his opinion, the outsourcing of the call centre is a challenge because it is difficult to motivate the operators that generally work part time in the company with the sole purpose of earning money. The turnover in the call centre does not allow for improving operator quality. In order to improve this situation, Alfa Telecom created control activities (e.g. Alfa Telecom people listen to a customer’s conversation in order to check if the operator is using the right procedures) and a mechanism to provide incentives for the operators (e.g. parties, gifts, etc.). But the manager of customer contact channel says that the call centre in outsourcing is a necessity suggested by the market. If the company needs more people in order to answer a new sales campaign, this situation does not represent a fixed cost to Alfa Telecom.

6.2.4 Information system for CRM

In the CRM department, IT is mainly seen as a way to allow the company to maintain a close and frugal relationship with a customer, however in the IT department some of the people are not much concerned about the “relationship with customer”. They know that Alfa Telecom is the market leader and do not believe in relationship

customer strategy to be more competitive. For them, the new CRM software is important to obtain operational efficiency.

People from the customer relationship department test their ideas using simple and available information technology tools, such as the Office package. Their idea is to prove the financial availability of the project (as a business case) to top managers before involving the IS department. This shows that the relationship between these areas is not very helpful. The manager of the customer relationship department complained that they can not count on an integrated customer database nor quality customer data.

In relation to CRM information systems, different initiatives took place at the same time. One software was developed in-house to attend residential customers and another one from Siebel was adopted to attend business customers. According to one IS interviewee, CRM software emerged from various types of software developed to solve the needs of the business sector. Each business sector had its own information system and a database. As a result of these technological initiatives and the history of the company (acquisitions and merges), nowadays Alfa Telecom has problems related to customer data quality. There are several customer databases, with low data integrity. The problems arose when the company observed the need to have all the information integrated. In 2007, a new (significantly different) Siebel release was being implemented in order to organise company data and to address some of their internal problems.

With these different CRM systems people in the company complain about customer data quality. The customer contact channel manager argues that without quality customer data, people in the marketing and sales sector cannot build customer relationship strategies.

Alfa Telecom has been trying to adopt new CRM software in order to integrate all its channels. More than one project aimed at Siebel adoption has been launched in the last three years. The dynamics of the external environment induced internal changes and the CRM project was also affected. According to the customer relationship department manager, even though the IS department has tried to involve the business department, this involvement could be improved. As Alfa Telecom has many ongoing processes and not all of them are documented, people spend a lot of time verifying these organisational processes, which may not be complete.

We have interviewed two managers of organisational processes department. They claim that organisational processes are expected to be planned before choosing the CRM information system. Nevertheless, organisational processes area and information system area have not worked together until now in the company. They know that the alignment between information system and organisational processes is very important and there is a new project to be developed together.

Other very relevant question is related to the inclusion of sales people in the CRM software acquisition. The sales manager claims that nobody in the sales area has been consulted on the CRM software acquisition. The customer contact channel manager talks about another problem related to IS department. She complains about the large customisation of the CRM software. According to her, this kind of decision is related to company culture, "People cannot imagine working with a different routine".

6.2.5 CRM learning process

According to a CRM manager, it is important to think and plan outside the limits, in order to prepare the company for future market demands. Nowadays, the company is the leader and has a comfortable position, but it needs to be prepared to change and adopt a different strategy when a competitor introduces innovations, said the CRM manager.

One of the IT managers highlighted that, with the CRM, a customer is familiar with the company's processes, what a company thinks about customers and how it is organised in order to attend to customer needs. We can observe that managers are concerned about organisational competence due to (1) its ability to help a company respond to market changes; (2) customer perception of the internal organisation of the company.

The sales manager responsible for enterprise customer argues that nowadays sales people must participate in customer business, as a consulting. In a win-win relation, Alfa Telecom must offer customers the products and services that will really add value to its business.

The company CRM manager agreed that today Alfa Telecom is in a comfortable position, compared to its competitors. On the other hand, he added that they need to work intensively in order to develop CRM organisational competences. He compares the telecommunication market with a sail-boat race: normally, the boat that is a leader only maintains the leadership, whereas other competitors must take a risk and change direction (innovate, try more aggressive strategies, etc.). But, in this case, the manager claims that the leader needs to have all the capabilities implemented in order to change, as well. One of the IT median managers talked about the company's complexity and size. According to him, "the strategy is sometimes planned and put in practice, but as the company is large, it is frequently not possible to move as quickly as initially planned".

The customer contact channel manager argues that the company is changing little by little, because the competitors, customers and technological revolution demand it. According to her, the mentality of employees must participate in the continuum cycles of changes that telecommunication company is inserted into.

The interviewees that work out of the IS department generally complained that this department receives a lot of power in issues related to CRM projects. Some managers claim that IS people are not concerned with business requirements and concentrate too much on the use of the most recent technology launched in the market. Business managers argue that the IS department must respond to the needs of other areas in the company, first of all observing business requirements and then looking for a technological solution available in the market.

The company observed that the sales paradigm has changed, and now they are selling more than just voice and data products and service; they are also offering an information system to a customer. The sale competence must therefore change in order to offer a specific solution to a customer. The customer-manager relationship also highlights customer life cycle as an important factor in maintaining customer for a long time. Some years ago the company focused on receiving orders, and dealing with customer complaints, but these initiatives were oriented towards an internal environment. Now, organisational processes must respond to customer requirements, and the customer has active part in some processes. This manager concluded saying that it is just the beginning of the market revolution and CRM is part of this “phenomenon”.

A CRM initiative demands new organisational structure. Alfa Telecom has difficulty working in multidisciplinary projects. Some of the interviewed managers complained that the company works in silos, in a very monolithic view. An IS manager argued that in order to develop a CRM project, it is necessary to allow people to dedicate themselves to a multidisciplinary project and not continue to respond to the sector's objectives.

6.3 Beta Energy Case Study

6.3.1 General description

Beta Energy is a large Portuguese company in the energy industry (oil products, natural gas, etc.). Beta Energy has also a strong presence in Angola and Brazil; and oil marketing activities in Spain and Cape Verde, Guinea-Bissau, Mozambique, and Angola. The company comprises four business activity areas: (1) Exploration and Production - responsible for supervising and carrying out all activities related to the exploration, development and production of hydrocarbons; (2) Refining and Marketing - manages the two existent refineries in Portugal and controls most of the Portuguese oil storage and transportation facilities; (3) Natural gas - responsible for natural gas supply and natural gas distribution; and (4) Power - generates electric and thermal energy to supply large industrial customers.

As a consequence of the instability in the global market of oil and gas, which has influenced the international price rise for these raw materials, the market value of Beta Energy has grown significantly in the last six months of operation (in terms of stock exchange value). The company closed the fiscal year of 2007 with 12.7 billion euros turnover and an EBITDA of 1,288 million euros (source: internal company report).

The CRM project had been initiated in a gas natural company before the restructuration that resulted in Beta Energy. One of the interviewed managers recalled the CEO of the natural gas company saying in 1998 that they were “sick” because employees normally treated “customers” as “users”.

Customer value creation is an important topic in the Beta Energy’s mission. It is reflected in the company’s CRM initiatives. Despite the company being a market leader, it is constantly improving in order to maintain its competitive level. The sector shows a

tendency to become fully liberalised by 2010. According to one of interviewed managers, the company is expecting strong competition from Spanish companies.

6.3.2 CRM perspective

According to the CIO, CRM is used to identify customers in order to attract and retain the best, and support a profitable and sustainable business. CRM is a concept that requires the enterprise to integrate all customer contact activities. The main goal of CRM, according to Beta Energy, is to offer a differentiated and personalised experience to the customers apart from their selected channel of contact.

For a successful CRM initiative a company is obliged to integrate the efforts of all the departments, including marketing, sale, and customer care, which have traditionally been managed separately. Only then can the CRM approach be used to identify, attract and retain valuable customers. As Beta Energy is a holding, a strategy of the CRM project group was to use resources from various companies in a synergic manner in order to capitalise on previous investments. The CRM objectives highlight the following issues: appropriating some CRM technological resources existent in one Beta Energy company; supporting the concept of “Customer Beta Energy” - the customer is considered the main resource for the company - in order to protect the enterprise’s competitive position; using the CRM program as an instrument in order to demonstrate the sale and innovation capacity to the market; and finally, establishing a propitious environment for synergy among marketing, customer service, operations, and other areas.

According to a marketing manager interviewed, CRM is a long and probably never-ending journey. He argued that there is a lot of potential in the company to improve the CRM concept, as it is related to business process. This manager emphasised the continuous organisational learning process related to a customer, and refers that in each

learning loop the company adapts, it improves and differentiates the customer's value proposal, according to accumulated organisational customer experience. In this way, a CRM strategy can create value for both parties: customer and company. A good CRM strategy can be highly valuable for a customer, creating for example products and services adapted according to their needs, great service quality, a better relation with the company, and the improvement of customer satisfaction. The potential CRM benefits are: maximisation of customer fidelity, increment in customer numbers in the company, increment in sales, and maximisation of profitability.

In Beta Energy, the interviewee suggests that many employees perceive CRM only as an information system tool. The marketing manager claimed that the IS/IT tools are important, but CRM depicts a business strategy retaining the enterprise key customers. CRM is perhaps, in his opinion, a very important customer fidelity instrument. According to the IS manager, CRM manages the relationship with a customer according to the value each one represents to a company, observing his/her future financial return.

Beta Energy started its CRM program prior to its establishment and the company has been passing through various phases with this business approach. Until July 2002, Beta Energy had increased operational actions related to CRM. Telephone attendance was the main issue that lacked an integrated customer view in each company of the Beta Energy group. In September 2002, the company started its analytical CRM project, and highlighted analytical marketing, complaints management, and other initiatives related to retail. The CRM analytical project was significant to the company as it extracted knowledge of the fidelity program and transformed it into a very influential tool in top managers' decision making (e.g. the sale of some petrol stations). According to those interviewed, in this second phase managing information systems, process, and people was already possible. In 2003, the company focused efforts on having a single view on

its customer base. They focused on collecting customer data, storing and treating IT in order to offer relevant customer information to business areas. According to the marketing manager, nowadays Beta Energy is developing important activities to improve customer knowledge: dividing customers according to Beta Energy business activities, planning different marketing actions (according to various Beta Energy businesses) and projecting a global marketing action for all the company's customers, differentiating customer by classification of value, and developing integrated concepts of products and services.

6.3.3 CRM business processes

In the last ten years, Beta Energy has been developing a more strategic view related to its customers. The IS manager described that it can be perceived in the specialised customer attendance structure (contact centre and customer contact channel), organisational processes and technology related to customer care and principles of customer treatment. He highlighted that today the whole company fulfils the CRM concept trying to improve customer relationship each day. Such an improved view of a customer is part of a new organisational strategy that shifts the focus from technical management to marketing and customer relationship management. It includes the involvement and commitment of the top managers.

The marketing manager argued that company has passed through a progressive assimilation of customer relationship models, which is crucial for developing organisational knowledge related to customer. It also assimilates techniques and information technology that help people in the sales and customer care departments. Beta Energy has changed its organisational structure in order to emphasise the importance of the customer contact manager. Nowadays, the marketing sector of the company contains a department called Customer Relationship Management, which is

organised in three areas of activity: (1) Contact Centre, (2) Customer Relationship, and (3) Fidelity Program. Managers develop a set of Key Performance Indicators (KPI) for each of the CRM department activities. In a Contact Centre people are responsible for service levels, efficiency indicators, costs, and customer satisfaction. In a customer relation activity the KPI are related to customer attendance, customer satisfaction, and quality of attendance. In the last area of activity, called Fidelity Program, KPI are related to customer fidelity, customer satisfaction, service level and the profitability of campaigns.

This area has a set of objectives: (1) to improve and standardise the customer relationship capacity; (2) to increase customer fidelity, especially that of the most valuable customers; (3) to increase customer profitability – to maximise cross sales; (4) to improve organisational knowledge related to a customer – to know customer purchase profiles and customer contact data; and (5) to improve operational efficiency – optimise attendance costs and customer fidelity.

According to a marketing manager, CRM area has been evolving along a mature path related to customer relationship capacities. This mature path of CRM is closely related to the evolution of the call centre concept.

The Beta Energy call centre was a voice attendance centre, which was created in order to optimise company costs and to obtain some synergic effects from various companies in the holding. At first, the call centre was purely inbound (i.e. it only received customer calls) and only later did it include an outbound service. The call centre has been improving its performance and extending its responsibilities.

Until 2001, Beta Energy had held the concept of an implemented call centre, with customer treatment limited to voice contact. This evolved to a contact centre concept, which uses all customer contact channels (voice, e-mail, IVR - Interactive Voice

Response, web, post office, and fax). At the moment, Beta Energy is starting to systematise simple routines related to final customers, enterprise customers and retailers. The interviewed marketing manager explains that there is a set of formal processes that guide the operators. Call centre area is shared among front office activities, which deal with customers, and back office activities, which manage customer information in the information system and interacting with CRM sector.

As a contact centre manager claimed, evolution of the original concept of a customer has given him the sense of being very fashionable in comparison with other Portuguese companies. He considered Beta Energy a pioneer in the SLA (Service Level Agreement) concept in the contact centre. This agreement is made with the outsource contact centre partner. In order to respect the proposed SLA, each customer request gives rise to an internal service, called “Service Level” (SL). Frequently, in order to respond to a SL, operators are obliged to ask a firm about a set of services, generating in this way an “internal service level”.

The contact centre has three basic service elements: (1) Inbound: to contact reception and customer attendance; (2) Back office: to deal with customer requests, to manage customer complains, to process cards, vouchers, faxes, emails, and all kinds of correspondence; and (3) Outbound: to make individual contacts.

Until 2004, each enterprise customer had their own sales person to manage the whole relation with the company. It was a unique contact point, which solved all issues. Towards to 2005, the Contact Centre developed a centre for enterprise customers that solved operational matters (like order, invoice, charging, etc.). In consequence, Beta Energy became more efficient for its customers and enabled the seller to concentrate on more strategic questions.

The second phase of Beta Energy's call centre was characterised by the reactive nature of CRM activities. Nowadays, a major part of the holding is in this mature phase. It is important to observe that each company of the Beta Energy group is in the phase of a mature customer relationship level. Beta Energy is composed of various companies with different customer relationship capabilities. The most advanced one is the petrol business, which has a fidelity program and is now entering the third mature level of the customer relationship concept.

Beta Energy is now trying to evolve in the direction of the concept of Customer Relationship Centre (CRC). This is an advanced level of maturity, in which the company develops a pro-active performance for its customers and prospects. At this level the idea is to manage all contact channels, systematise simple routines and complex processes as well. These organisational routines (telemarketing, promotions, etc.) have lower costs when applied in a scale economy, and they also demand standardisation of routine.

CRC is responsible for executing customer relationship promotion and developing activities in pre-and post sales. Moreover, CRC is obliged to gather and process customer feedback in order to change customer value proposals. The marketing manager argued that in this way the company practises the learning process and improves a continuing customer relationship process. The following activities are managed in the CRC sector: (1) Making pro-active commercial offers to customers or prospects, and managing the life cycle of these proposals; (2) Dealing with customer lists and customer proposals and the respective commercial pipeline; (3) Developing customer lists, with the help of the marketing sector, and managing campaigns, market studies and surveys; and (4) managing operational activities with enterprise customers, without the interventions of a seller.

An important aspect to describe is that Beta Energy has an outsourcing of contact centre activities. According to the CIO, the justification for choosing an outsourcing regime in the call centre of Beta Energy is the reduction of cost and the efficiency of service. It stems from the specialised know-how of a team manager (team motivation, performance evaluation, etc.). Other arguments are also mentioned: (1) the conversion of fixed costs (infrastructure, etc.) into variable costs - Beta Energy can demand service from a partner according to its work flow intensity, (2) the company is concerned with neither technological actualisation nor technical customer attendance, (3) in this way, Beta Energy can easily increase its attendance capacity.

Beta Energy defines the employee profile to be selected for a contact centre. The company also participates in the interviews, is responsible for the training program for operators and for controlling the quality of attendance service. As all technical and operational aspects of contact centre management rest with the partner, Beta Energy concentrates its effort on quality and strategic management.

The outsourcing service in a contact centre is considered successful by the interviewed marketing manager. He does not consider this a critical task and argues that all contact centre companies work all to the same principles. The view of this sector is to support the company's customer orientation through the integrated management of all customer contact ways (telephone, e-mail, web site, fax, letter). The CRM area has some objectives that must be faced by a Contact Centre: (1) to define and implement a uniform policies at Beta Energy related to customer relationship management; (2) to unify customer attendance (service level, procedures, content of contact, operations action, customer complaint management, etc.) and attendance indicators; and (3) to initiate integration of customer information.

The contact centre manager recognised that people from a partner company are easier to manage than Beta Energy employees. According to him, people working in a contact centre must be efficient, and disciplined while working with standard procedures. They must deal with a stressful environment, manage conflict questions without being aggressive, work as “a machine”, and realise that they are part of a complex process. This kind of employee is not present in Beta Energy, argued the contact centre manager. He explained that the operators are normally young, graduate students, open to innovation, with a high cultural level, working in a contact centre to receive “a scholarship”. The manager explained that for young people working in a contact centre is an important experience, as it improves their relationship skills and allows for dealing with time and measurement evaluations.

Contact centre training normally lasts five weeks (two weeks of behavioural issues and three weeks with technical content), affirmed the contact centre manager. He claimed that Beta Energy has little impact on the contact centre environment and having more internal employees to verify the partner activities would be of paramount importance.

A very significant perception related to the company’s CRM mature level comes from the contact centre manager. This manager argued that the contact centre area spends a lot of time trying to transmit the idea that their work plays an important role to the rest of the company. In the beginning he was known as “the phone operator boss”, and the contact centre’s activities were not seen as valuable for the company. In order to change this incorrect status, they prepared a training section to show the importance of the contact centre to all the employees (from top managers to stewards, in different groups, respecting the hierarchical levels). The contact centre manager claimed that

today they are recognised in the whole company, he said: “You are in fashion, and you receive good financial investments”.

Nowadays, the Call Centre area aims to unify the call centre and contact centre of all the companies of the Beta Energy group. The contact centre manager considered the following issues critical factors in his department: (1) velocity, (2) standardisation, and (3) efficiency. He is concerned with simplifying and standardising contact centre workflow in order to obtain synergy between front office and back office activities. The manager argued for the need to have operators with competences in both kinds of activities (front and back office) in order to manage the workflow demand more efficiently.

People in the contact centre must respond to a customer, irrespective of any unfavourable circumstance. The contact centre manager admitted to not attending a customer only if the land line was not available. If the CRM system does not work, people must write on paper and insert data in a system afterwards. If the financial system does not work, the operator is obliged to open an outbound activity, in other words, he/she schedules another time with a customer to conclude the assistance. In all cases a customer must receive good operator assistance that cannot be harmful for a customer.

According to the contact centre manager, operators need proper skills for all circumstances. He is responsible for choosing the operator's post according to his/her skills (e.g. a stammerer cannot work at the phone post, but can answer the customer's e-mail, exemplified the manager). This manager, inspired by provisioning concepts, divides contact centre activities into two segments: (1) it is possible to stock, the operators can chose the velocity of the work; and (2) it is not possible to stock, when a customer is involved in a real time activity (e.g. in bound call). A typical example of a

non stockable activity, the result of aleatory events, is a gas pipe rupture. By contrast, if Beta Energy presents a TV advertisement with a new offer, this is considered a non aleatory event, and the contact centre can expect for a high information demand.

The government regulator requires a quality telecommunications service level, related to the time of response, etc. In order to meet these requirements and to maintain the efficiency of the contact centre, the manager organises the contact centre team according to operators' skills: he has some operators that just work with back office activities, others only with front office activities, and some of them with both activities. This way he tries to respond to exigencies of SLA.

Another initiative related to customer care is the fidelity program. It aims at promoting customer retention in order to improve the company's value. The main idea is to motivate repetitive purchasing and stimulate long term customer relations, based on sustainably differential factors. Beta Energy seeks customers' long time loyalty, in order to know them more, and maximise their value, using up-selling and cross-selling strategies.

Beta Energy uses a loyalty loop, which involves three phases: (1) to know the customer: to obtain customer data, to know and to segment the customer; (2) to reward the customer: to offer a relevant value, to stir emotions, to exceed the customer's expectation; (3) to build the relation: to personalise the relation, to communicate with a customer and to innovate the relationship.

The company believes that the fidelity process involves an emotional link between the customer and organisation or, at least, a reliability relation with the company's brand, product or service. Beta Energy has two fidelity cards, one for enterprise customers and another for individual customers. This project started in 1998 and its aims to provide the company with customer knowledge. The Beta Energy fidelity card

also aims to automate the acquisition of products and services at Beta Energy retail points. In this way an enterprise customer obtains statistical information related to all the company's vehicles. With the enterprise customer fidelity card, Beta Energy does not recognise the end customer, but the enterprise customer only. Beta Energy also offers an individual fidelity card. When people have both cards, the company recognises the end customer. Nowadays, Beta Energy has one million individual customers with fidelity cards and seven thousand enterprise customers, which corresponds to 250 thousand individual customers.

Beta Energy seeks to acquire customer data such as: name, gender, address, contact phone number, e-mail, products and services consumed, frequency of consumption, form of payment, preferences, etc. All this information is stored in the customer database, in order to facilitate the CRM strategy. Such accumulated customer information can help the company to elaborate a valuable offer to a customer; it involves a continuous learning process. According to Beta Energy, this learning process can generate value and differentiate the company from its competitors.

All customer data collected by means of the enterprise customer card is registered in a customer database (with Siebel/Oracle software). One example exhibiting the importance of the fidelity card strategy refers to a project realised in 2004. The company had evaluated the efficiency of petrol stations using the indicator that measured the quantity of petrol sold in each petrol station. Afterwards, Beta Energy decided to sell some petrol stations to a Spanish competitor. In order not to lose a valuable customer, Beta Energy contacted frequent customers to invite them (and offer an incentive) to stay with Beta Energy and use the nearest petrol station.

According to an interviewed CIO, in that case Siebel Analytics was used to select the most frequent customers at each petrol station. The company used an integration

technology to extract data from SAP system (operational data related to payment) and Siebel (CRM operational data). This information was integrated in SAP Business Warehouse and Siebel Analytics Data Warehouse in order to provide, in real time, marketing and customer information to the finance and marketing departments. In that particular case, Beta Energy used CRM action in order to lower the customer churn and maintain the efficiency of fidelity.

Supported by such a CRM technological solution Beta Energy established a customer value model and minimised the risk of losing their fidelity. The managers could also evaluate the frequency of a customer in the shop, as well as the products and services they consume in order to manage product distribution.

According to the marketing manager, Beta Energy passed through three main phases in the fidelity programs. The first one was the “promotion era”: in order to attract a customer the company distributed vouchers, stamps and coupons in a printed form that entitled the receiver to certain rights, like obtaining a discount. The second phase was called the “fidelity era”. In that period the company proposed credit cards and fidelity cards with bonuses and discounts. The third one was called “global relation era” and involved fidelity programs with multi sponsorship and multi industries. In the last phase, the fidelity program was totally integrated with company’s CRM strategy.

Beta Energy is concentrated on responding to relevant variables of the fidelity program, such as (1) offering proposition offers - discounts, rewards, benefits, etc.; (2) convenience - easy access, speed, simplicity; (3) positive experience - repetition, process; (4) customer knowledge - preferences, behaviour; (5) communication - impact, relation, expectation.

6.3.4 Information system for CRM

CRM initiative requires close observation of the IS development in a company. The CIO started describing the IS department before the foundation of Beta Energy. In 1998, Beta Energy did not have any customer managing processes implemented. Many information services were in outsourcing. Simple modifications, such as inserting the logo representing the company in the customer invoice (in order to change the company's image in the customer's mind) were very difficult to force.

In 1999, the contact centre software was specially developed for the company. In the same year, a challenge task was developed. As the company changed the gas distribution system (to natural gas) it was necessary to enter the customer's house and obtain his/her data - this represents a very intrusive relationship action.

In 2000, the company changed the contact centre software to a Siebel solution. The CIO described at that time that the transition towards the concept of a customer was visible. Now the company is focused on the customer and concerned with the storage of "customer data". The IT sector manages a project to integrate initiatives of customer support that are currently isolated in various companies. Beta Energy outsources contact centre services to a partner with good experience and know-how of the sector. The Siebel IT solution helps to support the integration of these functions.

The CRM software solution is considered very relevant, but not more critical than SAP. Beta Energy uses SAP ERP software to control and operationalise all internal processes. For example, the ordering process and fuel loading for a truck fleet is critical for the company. If problems occur, they may result in chaos during the company's operation, and in customer discontent.

The marketing manager recognises that the IS/IT department must deal with other priorities, such as the ERP, and not only the CRM system. According to him, marketing

people always ask the IS department for more attention and sometimes IS people do not attend to marketing needs. This manager observed a significant change in the attitude of the IS department. Nowadays, the IS department is more aligned with the business sector. This is due to the change in the top manager position caused by the IS department's involvement in the CRM project. Now, the marketing sector is competent, it pro-actively helps the IS area. It can define the system's requirements and rethink business processes.

The marketing and IS departments are internal company providers, and they serve to attend to the demands of other departments. According to the marketing manager, they must develop transverse capabilities in various areas. He assumes that there is a power game, and occasionally they (marketing and IS sectors) are obliged to position their forces either on the IS side or on the business side.

6.3.5 CRM learning process

The initial CRM concepts had appeared in the company before it was named Beta Energy. Since 1998, the company has been learning a lot about ways to develop a customer relationship strategy. We organise this discussion in three topics: (1) CRM project adoption, (2) Contact Centre issues, and (3) CRM fidelity program.

First of all we must comment on the CRM project sponsorship. The CIO argued that it is one of the most important learning issues in CRM initiative. According to him, it was a mistake for the IT department to sponsor the CRM project. Beta Energy changed the situation and, nowadays, the business sector is the leader of CRM initiative. The manager affirmed that 80% of all business system requirements are defined by the business sector. This results in IS stronger alignment with business necessities and in people from business area being more motivated.

Another organisational learning issue refers to the broad functional scope of the CRM information system. The CIO considers a gradual implementation of a CRM system more adequate, as it is easier to control, respond to the employee's expectations, and manage organisational changes. The CIO argues that in the beginning of the CRM project Beta Energy was not prepared to use a CRM concept.

In relation to the CRM system, the marketing manager we interviewed agreed with the CIO that the decision of over customised software was a problem. The CIO claims that they adopted CRM software before trying to simplify the organisational process of Beta Energy. According to him, the team learned to observe the best practices inserted into the system package. In the first CRM implementation they customised 60% of all CRM software templates, in the last, only 15%. The marketing manager observed that the company must maintain the balance between the customising part of the system and the changing part of their internal organisational processes. At times, they must be pragmatic while implementing the software. On the other hand, the marketing manager highlighted the necessity of the IT department being subordinate to the business area. According to him, they learn about the need to analyse organisational process and to observe the opportunity for improvement, before selecting or implementing an information system.

The quality customer database is critical to Beta Energy. The contact centre manager says that 20% of company customers change their address, and they must manage 250 thousand returned letters. He highlights that each day a customer is more involved in the Internet world, and in the future a customer will be able to update his/her data on the company's website without any limitations.

The second important issue related to the CRM learning process is related to the Contact Centre. The inbound free phone lines in the contact centre represent a problem,

according to the contact centre manager. He highlighted two aspects: (1) people call without having a real problem (to play, to have a free conversation, etc.); (2) people use this channel to complain, and usually have a lot of time for it. In both cases, the company must train its operators to finish the conversation in a polite way and sometimes psychological support is needed for the operators. In the “808” phone channel customers pay for the calling time - the manager claims that charging for the call and offering a quality service is a better solution. Nowadays, the telephone channel is the most expensive one, followed by letters, fax, e-mail, the non structured web site and, the least expensive, the structured web site. For example, in the last one, all inserted data are validated in real time and the fidelity card is ready to be printed.

In the contact centre, the work unit is measured in seconds. The manager responsible said that they are trying to increase the rhythm of activities in order to become more efficient. The organisational process of standardisation is a key question. In order for the contact centre to be more efficient, at least 60% or 70% of all company information and organisational processes must be standardised. The contact centre manager claimed that standard routine must also be prepared for atypical questions. The manager stated that all the relationships between the firm and the contact centre should use IS issues in order to have appropriate governance.

The contact centre area learns more and receives more empowerment each day. This department can respond to the customer process, without calling on a manager's decision (e.g. simple contracts, whereas complex contracts must be developed by a commercial agent).

The contact centre must work in alignment with CRM concepts, affirmed the contact centre manager. According to the manager, that the operator's customer attendance guidelines are based on CRM concept is critical to good relationship with

customer. Each organisation's routine involving a customer has to be rethought in order to check the practices, e.g., an operator should never ask for a customer's personal data twice. The manager claims that financial resources are needed in order to prepare the infrastructure and the people in the contact centre. Moreover, the continuous verification process, such as mystery customers and calling accompaniment, must be conducted in order to maintain a good quality of service. The manager stated that hundreds of people perform on behalf of Beta Energy and this is a critical point of the CRM program.

People in the contact centre must internalise that they represent the public face of Beta Energy, affirmed the contact centre manager. He argued that each operator must be able to develop a one-to-one relationship with customer. The contact centre plays a significant role in being the front office of the firm. To successfully develop their activities with customers, people in the contact centre must require a good service from the firm.

Beta Energy cannot use a pop-up technology for recognising phone number as telecommunication companies do. Therefore, as the contact centre manager argued, the company must attend all calls competently, without previous knowledge of what kind of customer they are about to talk to.

The third issue to highlight in the CRM processes is related to the CRM fidelity program. The marketing manager argued that the time has come to rethink their fidelity program. Nowadays, they have a lot of customers involved in the fidelity program, and it is time for innovation.

The current CRM challenges for Beta Energy are: becoming more familiar with customers, appropriating the customer segmentation, innovating customer value proposition, improving management of the contact centre, improving the skills of front

office operators, improving the capability to communicate with customers, solidification of the organisational culture based on customer relationship, improving control metrics, and maximising the use of IS.

Communication with the customer is a fundamental organisational competence. Beta Energy tries to promote the need to send an influential, relevant, clear message in its company and the content must motivate the next step in the relationship between the company and customer.

6.4 Gama Telecom Case Study

6.4.1 General description

Gama Telecom is a Portuguese mobile communication company. The company with around 1000 employees, closed the fiscal year of 2006 with sales of 129,7 million euros, EBITDA of 647,6 million euros, and near 130 million euros turnover. It is important to highlight that the operational development of the company improved EBITDA tax related to previous year up to 1.1pp, which reflected a commercial improvement and rationalisation of investments (source: internal report).

This company's strategic position is customer orientation and innovation. Technological innovation, and the products and services aims to respond to particular customers' needs for all kinds of mobile phone use (personal or professional). This company has 6 million customers, and is the biggest mobile company in the country.

Gama Telecom was the first to offer a pre-paid service, but it is also continued to offer a post-paid services. The main objective was to simplify the payment process and avoid invoices.

6.4.2 CRM perspective

According to the interviewees, CRM concept is related to the fact that the company cannot survive without customers. Therefore it is necessary to know who the customer is, what his/her needs and expectations are, and the value that they represent to a company. Despite noticing that CRM is a new fashion IT consulting, the IS manager claimed that it is important to apply good organisational practices in order to position the process to offer a good relation with customers.

On the other hand, the interviewees believed that Gama Telecom understand the CRM concept in a different way. One of them argued that many top managers' decisions are not related to improving the customer knowledge cycle, but rather to improving the competitive nature of the company. In other words, the company wants to be appreciated by customers in terms of its brand, popularity and innovation. According to the interviewee, many times Gama Telecom goes against CRM values and principles in order to achieve this competitive position.

6.4.3 CRM business processes

Gama Telecom organises its customer relationship area in four areas: (1) to attend customers, (2) to attend customers that spend a lot of money with company, (3) to attend enterprise customers and, (4) to attend personal business. These superintendents are responsible for observing customers' needs, expectations and problems.

In terms of customer contact channels, Gama Telecom has shops, a call centre, a web site, e-mail, IVR, and fax at its disposal. These multiple customer contact channels gave rise to a CRM project in the company due to the dispersal of customer information in the company. The manager interviewed claimed that an operational necessity resulted in a CRM project. At the end of 1999, the manager responsible for the Customer Service Area identified the problem and proposed the needs to plan a project related to

customer services to the top managers. Gama Telecom observed the situation in terms of existent information system applications and tried to choose the best software option on the market. The objective of the company in that phase was to have unique software to deal with customers and to have the customer information fully integrated. The project started in 2000 and the software was bought at the end of 2001.

The IS manager estimated that Gama Telecom receives 18 million customer interactions over one year. He argued that a lot of operational work is demanded in this activity. The CRM solution means, first of all, a significant operational economy. The automation of company's workflow between the front office and the back office is crucial. It was one of the CRM project objectives.

The main influence of CRM software adoption occurred in the customer service area of Gama Telecom. As the manager of this area was totally committed to the project, organisational change was not complicated in this area. The impact made on the sales department and marketing area was not significant. According to the interviewees the marketing area was not involved in the project, mainly because the Siebel catalogue was more interesting from the point of view of marketing topics than it really was in practice. The Sales Force Automation (SFA) was part of the project scope, but in order to make the CRM adoption possible, it was necessary to eliminate some requirements. Therefore, the SFA and marketing modules were eliminated from the project. As marketing people were involved in the marketing project related to "Management of Contents", they were not concerned with the CRM project. According to the interviewees, marketing people had an analytical CRM tool (SAS) before Siebel implementation. This analytical tool collects the customer data of operational systems and characterises customers according to their behaviour.

In brief the marketing department is responsible for managing the content in all channels of communications, as well as managing mail and publicity. People in the marketing department use the output of analytic CRM in order to send the customer's communications but they are not responsible for the customer analytic information process.

6.4.4 Information system for CRM

It is important to consider that Gama Telecom was pioneer in Portugal, among telecom companies, in CRM software implementation. Although various CRM software had been analysed, such as Vantive, Clarify and SAP, the software selected was Siebel. In 2001, CRM technology was not mature enough. According to IS manager interviewed, SAP for example, only had interesting Power Point slides related to CRM software. At that time, Siebel was the most robust CRM software available, affirmed the IS manager.

Gama Telecom was looking for a CRM software to collect customer data from all contact points, and elaborate a customer profile according his/her needs in terms of products and services. The company also wanted to maintain the historic customer data in order to involve the customer in the relationship. There were more detailed requirements related to each customer interaction contact channel, and sales force automation.

The CRM software project adoption finished at the end of 2004, and from this point onwards Gama Telecom has been working to improve the implementation exploration of the software. According to the IS manager interviewed, the implementation has been a special project that demanded a lot of effort from the staff, such as training. Siebel implementation also demanded new hardware.

It is important to highlight that this project was supported by a business case, where measurable metrics were established in order to observe the real benefits the CRM software could achieve. These metrics were related to customer waiting time on phone, number of calls received in one hour, number of customer calls solved during the first interaction, etc. As the software implementation took place in the call centre department, it was easy to verify the financial benefits because such an activity is in an outsourcing regime and the operation cost is measurable.

Gama Telecom expended significantly during the CRM software implementation, as the whole technological infrastructure was needed. Siebel is a centralised technology, therefore the licenses for the entire company are expensive, as well as the training program. When the company decided to adopt the Siebel software in another department, the investment was not as significant as with the first time.

Although the IS manager claims that while initiating the CRM project the technological tools were not mature, he highlighted that nowadays the technology is stabilised, and there is no reason to be concerned.

According to one of the interviewees, a problem posed by the Siebel project was the number of templates that Gama Telecom customised. The interviewed IS manager claimed that the first idea was to buy the software, customise it and use it. He argued that the required workflows were not inserted in the software (mainly the front office and back office automation), and they invested a considerable amount of money and time in order to customise Siebel to Gama Telecom reality. According to him: “The bigger customisation, the bigger pain of evolution”.

6.4.5 CRM learning process

Gama Telecom learned from the CRM project software implementation. The company started the CRM project three times. In the first attempt, the problem was the

large scope of the software implementation. At the beginning of the project all the evolved technological partners agreed on the scope of the project, but the difficulties started when each one's responsibilities were defined. The company terminated the first effort to implement CRM software and learned that the contract protected Gama Telecom from unsuccessful risks and required a lot of partner work. In the first attempt the champion of the project was the Customer Service Area of the company, but the IS department and organisation and process department also participated.

During the second attempt, the risk management was not adequate, the level of risk being on the side of the company's partner of implementation. The contract terms of the project were not acceptable for the technological partners. Establishing a coherent project contract was considered a challenge by the IS manager interviewed. The partner analysed the conditions of implementation, the existent applications, the requirements, definition of the planned architecture and concluded that to continue with the same contract was not possible. Once again the project was cancelled.

The third attempt to adopt CRM software took more time than planned, but it was successful. According to the IS manager, the results satisfied the business requirements, albeit not completely. He considered the learning experience a very positive point that differentiates the company from its competitors. The problem with the last attempt was related to the Call Centre Multi Media, which could not be completely adopted, as the chat, messenger and call browser were not delivered in time. This third attempt lasted 18 months. The IS manager highlighted the involvement of employees and the commitment of the director of Customer Services Management as success factors of the project. This manager was responsible for rescheduling the project (during the third try), reducing project requirements, and other crucial decisions related to problems that occurred during the realisation of the project.

The interviewees talked about their relationship with consultancy companies. According to them, there are three interesting topics to describe. The first of one is related to the models that consultancy companies use. The idea of the interviewed managers is that consultants try to maximise his/her hours in order to apply a pre-existent model. The second topic touches upon patterning prescriptive models. Consultancy companies, from manager's point of view, do not concentrate on building the solution for the project together with company staff. Instead, they use their prescriptive models. The third issue is related to Gama Telecom's organisational learning. Gama Telecom delegated the responsibility for success of the project to an IT consultancy company. Nevertheless, now they observe that the IT project is the responsibility of the company and it is its own staff that really has knowledge about Gama Telecom.

6.5 Delta Telecom Case Study

6.5.1 General description

Delta Telecom is a business unit of Gama Telecom (a Portuguese mobile telecommunications company described in 6.4), based on low-cost operation. The competitive environment of the telecommunications sector demands new organisational strategies, and Delta Telecom is a result of a new strategic initiative of Gama Telecom. This business unity was a MVNO (Mobile Virtual Network Operator) conceptual test and nowadays represents a successful business case.

A MVNO refers to a company that provides mobile phone service but does not necessarily have the whole infrastructure required to provide the mobile service the allocation of spectrum. MVNO is the retailer and MNO (Mobile Network Operator) is the manufacturer - in this case Gama Telecom. The MVNO company must have its own

sales channel and customer care, and also some value-added services and a billing service (Borrman, 2005).

According to Borrman (2005), MVNO is “a wholesale arrangement that allows the MNO to sell excess capacity for resale by more diversified, specialised or other markets through hosting a service on its network to an MVNO”. According to a Customer Service manager interviewed, the MVNO concept was recently adopted in Portugal, following many other countries. The telecom model was legislated in Portugal in February, 2007³.

Delta Telecom appeared in July 2005. The market segmentation was focused on customers looking for low cost, simplicity in the operational process, flat tariff plans, and lack of fixed charging. The company intended to provide transparency in its tariffs. For Gama Telecom, this business model (MVNO) means lower operational costs (billing, sales, customer service, and marketing), helps to decrease the churn, and increases average revenue per user by providing new applications and tariff plans. In this way, Gama Telecom amplifies its offer. At the moment, this company offers products and services from the low cost segment to the premium market segment.

Delta Telecom has 20 employees. One of the traditional characteristics of this kind of business is to have a small group of employees and outsource many activities. There are three functional areas at Delta Telecom: customer service, technical area, and commercial/logistics area.

According to an interviewed Customer Service manager, Delta Telecom is different from its competitors (in the low cost segment), because more of them offer low cost tariffs, and Delta Telecom is a low cost brand. The company’s operations are based on three concepts: simplicity, low cost, and efficiency. In order to be a low cost mobile

³ See more details at (<http://www.anacom.pt/template31.jsp?categoryId=234406>).

brand all the staff must understand the company concept and the whole end-to-end process of delivering a mobile telecommunication service.

6.5.2 CRM perspective

CRM is a key concept to Delta Telecom. According to an interviewed Customer Service manager, “CRM is mission-critical”. The organisational concepts and processes are drawn to allow customer participation. Delta Telecom has many relevant values related to customer relationship. The company realises that the customer must be independent, his/her freedom is more important than the quality of customer database in the company. Each customer has access to his/her own data in customer database of Delta Telecom, via the website.

As Delta Telecom is a low-cost company, it represents both a low barrier to enter and low exit barrier to a customer. As a result, the company must permanently plan strategies to avoid customer churn. In Delta Telecom, customers are completely free to commence or finish the relationship with the company. The interviewed manager claims that the company is trying to offer a free option to customers and avoid using mechanisms to oblige customer to continue the relationship. With this philosophy it is necessary to maintain customer satisfaction at a high level in order to avoid customer churn. This is also observed in the use of the service, Delta Telecom does not demand any obligatory use of service from a customer.

Nowadays, the company neither divides its customers, nor calculates the value of individual customer. According to the interviewed manager, this is a challenge because they want to maintain their values such as simplicity and transparency. Now, Delta Telecom is proud to deal with all its customers in the same way, with no distinction that could damage a set of customers.

6.5.3 CRM Business Processes

Gama Telecom's slogan clearly mirrors a CRM value: "the best relation with the customer". The company aims at winning customers that are looking for a simple solution in the complex telecommunications market, through an objective and transparent proposal. This commercial proposal is concentrated on low prices and a very direct customer communication, affirms the Customer Service manager. In order to access Delta Telecom services, the customer must pay previously. The customer's credit is managed in real time.

The company avoids manual tasks, all its workflow procedures are automated. Delta Telecom tries to learn from its customers through surveys, instead of launching and forcing the customer to buy a fashionable product or service. The company strategy is to evaluate according to customer's voice. At this moment, for example, customers are asking for a prepaid (paid for in advance) Internet broadband access service. The company uses analytic CRM tools to observe customer tendencies. The top manager of Delta Telecom is attentive to the stakeholders of Delta Telecom. The employees, the call centre operators, the suppliers and especially the customers are listened to in order to build the evolution of strategic plan of Delta Telecom.

The CRM software of Delta Telecom is considered a very simple one by the Customer Service manager. According to him, they register seven different customer attributes, and other companies have more than a hundred customer attributes. Delta Telecom considers all the CRM analytic information critical, and this information is stored in CRM operational system. All parts of the enterprise's website are in constant usability assessment, in order to answer customer needs.

The Contact Centre is the sole customer contact channel. The company does not have its own shops - customers can buy products in outsourcing shops. CRM

information is necessary in all customer contact channels. Traditionally this poses a problem to CRM project. As Delta Telecom has a simple customer relationship model, and just one contact centre, it is easy to maintain updated customer data.

Delta Telecom business is based on a sales voice service and data service with low cost and simple tariff. Nowadays, Delta Telecom is selling its “business model” to companies that want to offer a mobile phone service to customers. In this way, Delta Telecom is selling new MVNO to companies, e.g. Benfica Telecom, Dragão Mobile, Phone-IX. In other words, Delta Telecom is selling its services with a different commercial name, using a revenue-sharing system, according to specific agreement levels. The objective of Benfica Telecom, for example, is to offer a personalised service to football fans (e.g., news about the football club, special information about games, etc.). Benfica Telecom can use CRM values naturally, because it is a beloved brand for the fans. Delta Telecom neither works with new tariff plans nor has its own fidelity card yet, but it sells its business model to new MVNOs. The company is now studying the possibility of offering its business to companies in other countries.

According to the interviewees, nowadays, Delta Telecom is a company without a face. The only way to contact the customer is the contact centre. This service is outsourced by the company. Its web site has information related to the organisational structure, some details about the business history and about its human resources. Delta Telecom is planning to restructure its website, insert employee photos and direct contact, in order to personalise the brand and to stay close to its customers.

In order to contact Delta Telecom, customers can chat, send an e-mail or call. All customer questions should be answered during the first contact, but whatever operators are unable to answer, they send to back office department. This sector is responsible for helping front office in data entry processes (sending documents, portability questions),

digitalising documents and answering questions that the front office is not able to answer during the first customer contact.

SugarCRM (the CRM software) helps the company integrate all customer information from different customer contact channels. Prior to the SugarCRM adoption, Delta Telecom had had silos of information for each customer contact channel, which prejudiced company efficiency and resulted in an elevated number of discontented customers.

Contact centre service is critical for Delta Telecom; the operators are considered the company's voice and face. According to the customer service manager the company outsources this critical service and the company must change its strategy, because the partner is not efficient enough.

Although Delta Telecom established a very specific SLA with a supplier company (outsourcing regime), the customer service manager interviewed is not satisfied with the service. He complained that the provider is neither proactive, nor reactive at times - "[they] just change the service quality when I threaten to revoke the contract". In general, this manager considers the contact centre companies to be of very low quality, and he poses the question of how to improve the contact centre services and make the operator's activity more attractive.

The partner company that offers the contact centre service provides its operators with five training days. The operators follow a pattern guide, which has not been altered since 2006. They have an incentive program for operators to fulfil to their goals, e.g. each contacted customer must generate a sale. The operator's motivation is a concern to the Customer Service manager of Delta Telecom. The company offers gifts to contact centre operators when they meet their sales targets. Delta Telecom also provides activities to control contact centre quality service, such as mystery customers, and SLAs

for inbound and outbound activities. The supplier company receives punishment if it does not follow the agreements.

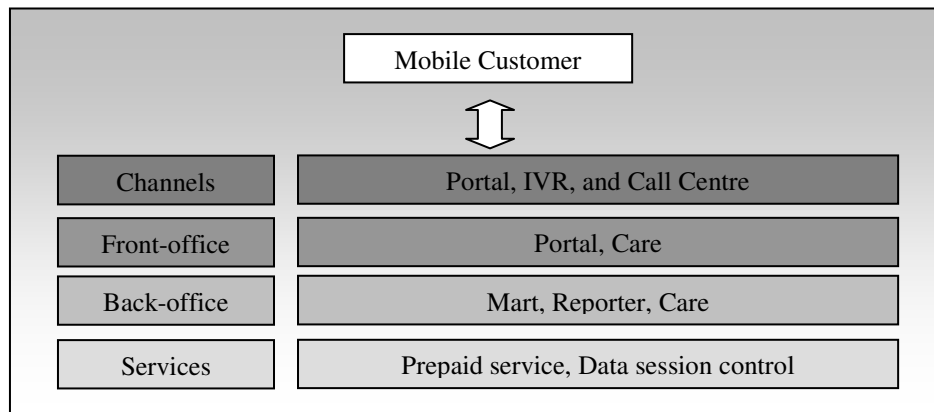
6.5.4 Information system for CRM

Gama Telecom uses the net of its MVO company but has its own information systems. According to the Customer Service Manager, in this way Gama Telecom has more autonomy.

Delta Telecom has two main technological partners to offer the CRM solution. In order to introduce a market model that allows simplicity, low prices and easily understandable tariffs, the company resorted to Mobile Virtual Network Operator forms. This technological partner is a part of the same holding as Delta Telecom. Delta Telecom prefers to work together with the companies that are part of the holding, but only if those companies praise values like innovation, and dynamism, such as Delta Telecom. In the case of its technological partner, Delta Telecom recognises the very well developed new products' plan and the management of data services. The manager interviewed claimed that both companies work with synergy and well sustained bases.

There are three customer contact channels in Delta Energy: a call centre, IVR and a website channel. The information technology solution has the following functions, a prepaid service in real time, customer care, call centre, business management, sale channels management and stock management, reporting tools, and business intelligence tools.

Figure 10. Information architecture



Despite Delta Telecom being an MVNO of Gama Telecom, it does not use the same CRM software solution. In the very beginning of the CRM project, the top managers did not agree on investing in a new CRM technological solution because they thought that Gama Telecom should do so.

A customer service manager interviewed, who had had previous experience in a consultancy company, formulated a business case in order to select adequate software. This business case was well accepted by the top managers, as was based on the ROI (Return on Investment) and strong benefits management approach to show the importance of the investment. Before analysing all CRM tools available in the market, Delta Telecom concluded that Open Source software was adequate to fulfil all CRM business requirements.

SugarCRM was the chosen solution, and the company customising the software was challenged to implement a related prototype in three weeks. The company that customised SugarCRM is Portuguese and small in size. In the first prototype, the portability process was chosen to be implemented. This process was fully tailored; the interfaces were also defined in order to guarantee that this solution would be able to work harmoniously together with the existence of Customer Care solution

(interoperability between the software solutions). The prototype was well evaluated and company spent three months implementing the SugarCRM at Delta Telecom.

It is important to observe that as the customer service manager has experience in CRM projects, this manager described all system requirements, defined customer data model and other CRM software specifications.

The CRM software project payback lasted six months and the total cost (including the first year support) was 99K €. After the first part of the project, the measured indicators were very favourable and even above the expectations.

The adopted SugarCRM modules are: channel manager, document manager, task manager, campaign manager, measure, and customer manager. Moreover, there is a module responsible for helping the decision making. The system also provides a *client-self-service*, which allows customers to access their own consumer data, to update their contact data, to ask for information, and to update service configuration orders.

6.5.5 CRM learning process

According to the Customer Service manager, Delta Telecom can be considered a successful mobile telecommunications service case study in Portugal. This low-cost business unit involves critical knowledge and is well evaluated in the country, mainly because it rationalises the use of the IT resource. At the very beginning, Gama Telecom was concerned that the new business unit would rob them of its customers. Now, on the contrary, Delta Telecom returns significant amount of money to Gama Telecom, because the company sells its business model.

The managers interviewed in Delta Telecom points out some critical factors to its success. First of all, the customer service manager claimed the importance of CRM project sponsorship. The know-how related to CRM concepts and the mobile telecommunications process is also mentioned. In the case of Delta Telecom, some key

actors of the company have had experience in CRM adoption and were able to avoid committing the usual mistakes in this kind of project, like customising the templates of CRM software. Another good practice adopted is related to the very simple organisational processes that involve customers. The prototype of CRM software was tested by the users. The involvement of the users in the project was considered crucial for CRM project success.

The selection of correct partners was also a considered factor. As Delta Telecom is part of a holding, they chose to work with players that form part of the same holding. The criterion to choose the partner was the dynamism and pragmatism of the organisation. The customer service manager also evaluated the values of its partners. He claims that Delta Telecom needs partner with the same working spirit.

At the very beginning Delta Telecom decided to be autonomous from the MVO company, using only the net provisioning and mediation structure. All the other functions were planned according to the concept of a “low-cost company”. The staff who initiated the Delta Telecom operations has now returned to their original holding companies and activities.

A new challenge will be customer segmentation: calculating the value of a customer. The managers must also think about the way to obtain customer fidelity without fidelity program.

The customer manager also wishes to solve the problem related to contact centre. In his point of view, working in a contact centre is perceived as a negative concept, inferior in comparison with other activities, nobody wants to work there. At the same time, it is crucial for Delta Telecom to offer a good relationship with a customer. The top managers see this activity as a cost and proving the opposite is very difficult in the circumstances.

6.6 Omega Communication Case Study

6.6.1 General description

Omega Communication is a holding responsible for managing and exploring the public post office structure and other non-traditional activities related to the communication sector. Omega Communication, which operates in Portugal, Spain and Mozambique, is constituted by eight enterprises, with more than 15000 employees. This holding was a monopoly and now it is in constant innovation (new technologies, new business, etc.) due to its participation in a challenging market.

The administration committee of the company is concerned with the new demands of the stakeholders (shareholders, customers, employees, etc.) and it constantly observes the interdependent elements: economic development, social progress and environmental conditions. The mission of Omega Communication is related to the establishment of physical and electronic connections among citizens and public administration, companies and social organisations in general. The company logistics and communications vocation illuminate new business that allows Omega Communication to help customers. Nowadays, many post offices and shops are not as profitable as they were in the past, therefore the company sells other kinds of products in order to continue selling stamps and delivering objects throughout Portugal.

As an example of innovation in Omega Communication, we can highlight the fact that the company is the first MVNO operator to have established a relationship with Delta Telecom. In the future the company plans to use customer data in order to enable CRM campaigns (such as sending a SMS - Short Message Service- to confirm that an important post arrived at the destination, claimed the commercial manager). A different holding company is responsible for offering direct marketing services to enterprise

customers. The company has a group of partners to offer specific services, such as working with a customer database, printing, etc. The main customers are small companies that do not have specific competences in order to select the right partners to help in direct marketing. Omega Communication has partners in every specific segment of activity in order to help enterprise customers perform direct marketing. According to the marketing manager, the Portuguese market is not yet comfortable with direct marketing, and companies are just starting to learn this new paradigm. A final example of innovation in Omega Communication is digitalising traditional letters and sending them to a customer's e-mail.

The company closed the fiscal year of 2007 with EBITDA of 100 031 thousand euros (registering an increase of 26% related to 2006).

6.6.2 CRM perspective

Omega Communication has experienced an unsuccessful CRM project adoption. According to the interviewees, about five years ago the CRM technological project was included in the strategic plans of the administrators. The company made some effort in order to analyse the available market solutions, including SAP and other suppliers, but concluded that first Omega Communication had to solve basic information problems, for example, the communication flow among all the enterprises of the holding.

This project was launched due to the necessity to deal with customer complaints in an integrated way. At that time, the company had an information system to manage complaints but it was decentralised (by country geographic region). Omega Communication tried to find a CRM commercial package to solve the problems, and that project was an initial CRM initiative for the whole company. As the requirements of the system were specific, it was necessary to change the software considerably. The adopted CRM package could not fulfil the needs of the company. An interviewed IS

manager involved in that project, who was interviewed observed that designing specific software would be the right solution. They made a lot of effort (time, financial, human resources, etc.) but the project was cancelled. The IS interviewed argued that the company called CRM a specific “complaints system” project. It failed for various reasons, mainly related to the mature level of technology, it failed and now people do not want to comment about CRM.

Different managers presented negative arguments related to CRM. The commercial manager argued that only in well developed countries is successful marketing relationship possible, and Portugal is not the case. Another one said that CRM initiative does not make sense to deal with casual customers in the post office due to the strong financial investment that would never return to company. Despite observing that people are hesitant to talk about CRM, we can find many initiatives related to the improvement of customer relationship. Omega Communication started by building the customer database. All questions related to customers’ complaints are registered in the database, but only people in the post office can consult this data. Data related to MVNO service are also registered in the database. These data are analysed and the company starts to make cross selling with other company products. The CIO of Omega Communication claimed that “the company has CRM initiative, but without any commercial software package”.

Only one company of the holding has CRM software. This company, which operates with logistics, has a call centre, SFA and complaint management modules of SAP CRM. The adoption project was conducted in 2004 and 2005. This company works in a competitive market and uses the CRM tool in order to be more efficient with its customers. The main objective of this project was to integrate customer information, which was in the sales person computer.

This CRM adoption project also had problems. First, because the requirements involved many characteristics and customisation totally changed the software package, argued the marketing manager of this company. She said that for a few weeks the company was not able to charge using the new software. Omega Communication changed the technological supplier company. As the old project was not documented, the new technological partner started the whole project again. The manager claimed that nowadays the company does not even use half of all the software capacity.

There are problems with the CRM system adopted in Omega Communication's logistics company. People in the company prefer to use the old software or Excel. In the beginning people used the software because the manager was fully committed to the CRM project, argued the IS participant of the project. Now, the manager changed and CRM software does not receive the same importance, and people are not motivated to continue using the software. She also claimed that the SAP CRM version that was adopted is not user-friendly and people spend a long time doing routine tasks. The interviewee argued that people do not understand how CRM software could help them and they think that by using the software they would share a lot of information related to their customers. In order to change this situation Omega Communication must work on changing the cultural mentality and motivate people of SFA to use the CRM software.

According to the IS manager, Omega Communication has a small budget to spend on IT, and CRM technological solutions are very expensive. Therefore, the company continues to work with simple technological solutions (Excel) and the commercial area uses the operational data (from ERP system) to attend customers in a more professional way.

If all Omega Communication companies had SAP software, it would be easier to adopt a CRM software, claimed the marketing manager. She argued that there is a good

structure of contact point with customers. To invest in CRM will not be difficult for Omega Communication. In her point of view, the company must integrate all the ERP software that already exists and invest in a sales force automation CRM module. She argues that Omega Communication does not have CRM yet, because first they must develop base tasks, such as, working the organisational culture, designing processes, and establishing an adequate organisational infrastructure. According to her, today the company does not have CRM software, but the employees are prepared to improve customer knowledge.

Omega Communication, according to the IS manager interviewed, has CRM software licences available, but investment is related to technological infrastructure.

6.6.3 CRM business processes

According to internal studies, the main customers' expectations are related to the improvement of products and good prices; fidelity, trust and satisfaction; secure conditions for sending objects and an expanded strong geographic coverage. Omega Communication has prepared a set of instruments in order to communicate with customers: campaigns, personalised communication, post-sale activities, publicity of company innovations, a call centre, a magazine, sale force automation (in the case of enterprise companies, the company uses the concept of key account managers), market trends analysis, and surveys about the quality of services. In order to control all the company's initiatives, the managers created some mechanisms to evaluate the improvement of customer services, such as services certification and mystery customers.

Omega Communication is concerned with the quality of service realised by customers. As the company passed from the monopoly reality to the free market,

customers receive more attention. Relationship marketing is viewed as an opportunity for the company to win customer fidelity.

In order to improve the customer services, Omega Communication has changed the organisational structure, giving more autonomy to local managers. In this way, the sales agent is dedicated to deal with a specific customer and represents all the companies of the group. The managers claimed that employees are more qualified and motivated, and customers can observe the personalised relation (including products and services of various companies of the group). This initiative is part of the employee ideas' forum, which is responsible for sharing organisational knowledge and proposed organisational changes related to the improvement of customer relationship.

The marketing department is divided in two main groups: working in strategic marketing and developing operational activities. Nowadays, this Omega Communication department has nowadays 100 employees. The marketing manager argued that this is not enough to cover all the marketing needs of the holding. She told us that there were various marketing departments and with unification, the alignment of the company related to marketing initiatives improved. According to her, the decision to unify various marketing departments has strengthened the Omega Communication brand, because nowadays they are more coherent in the product portfolio, brand strategies, brand image, etc. According to the marketing manager, her sector is responsible for helping sales people to be more efficient and elaborating a commercial proposal towards customer expectations. Nowadays, all customer data treatment is done manually, as the company does not have an appropriate technology to help them (nor does it have any centralised customer data). The contractual customer is classified according to the invoicing and the geographic area.

According to the CIO of the company, the customer oriented perspective is a new idea for employees. Omega Communication has two kinds of customers: occasional and contractual. According to the commercial manager, Omega Communication has many occasional customers (that go to the post office to send a letter or an object) and the company does not intend to know them. It is relevant to know the needs and expectations of contractual customers, in his point of view, in order to establish a more pro active relationship. For this kind of customer, Omega Communication has personalised attention. There is a key account manager who deals with contractual customers and who is responsible for knowing customers' needs and expectations. According to the CIO, the company invests in IT in order to foster the relationship between Omega Communication and contractual customers.

Omega Communication observes that physical contact is not enough for customers; digital communication (SMS, e-mail, chat, etc.) is increasingly common each day. According to internal statistics, phone calls decreased 10% in relation to least year, and contact by e-mail increased 12,5%. According to the marketing manager, in order to offer a more integrated service Omega Communication has been trying to simplify the call centre of the group, offering a single access. Omega Communication has a single web site with links to various companies and there is a central repository for receiving, managing and storing the customers' e-mails and complaints.

Customer complaints are very important and are also considered a challenge to Omega Communication. They signal the company's problems and help the company to observe quality patterns proposed by Anacom. A customer can complain using various contact channels: the call centre, e-mail, web site, letter and post office. There is a specific area in the company that treats all the complaints using information technology.

The main reason for people's complaints is related to the localisation of post offices and problems with object delivery.

6.6.4 Information system for CRM

The IS department of Omega Communication, which has 500 employees, is organised to deal with information system and organisational processes. Some years ago, the company changed its structure, centralising the responsibility related to information systems and processes in the same department. The IS department has been developing various systems that help the company to deal with customers. The marketing manager argued that the main problem is related to the integration of these systems.

Omega Communication identified a set of risks related to technological evolution and new IT services: new means of communication, such as Internet, SMS, etc and the substitution of traditional post offices (and physical letters) by new ways to communicate. At the same time, some opportunities can be highlighted by the company, such as: (1) developing new business areas, (2) innovating with new technologies, (3) using the Internet to send e-mails (digital letters), (4) offering mobile telecommunications to customers, (5) new ways of payment (governmental fees that the citizens use the post office to pay), and (6) the internationalisation of the post business.

Omega Communication heads towards well developed organisational processes and customer data (defining customer segmentation, knowing the product and service each customer gets, historical register, helping managers in decision making). As Omega Communication is a holding, and all the companies have part in a value chain, it is important to establish an integrated information technology architecture (observing the technological evolution and legacy systems).

The IS structure of Omega Communication is oriented towards attending processes related to contractual customers. In the post offices that deal with occasional customers there are no IS initiatives from the IT department. The managers in the post offices may have some technological initiative in order to help to know the customers better, but Omega Communication does not have any control over this. One of the IS managers interviewed argued that this problem has been discussed many times in the IS department, but it has never been a priority, because the profitability is not relevant in this case. Nowadays, post offices have their own technology infrastructure - some of them use paper to register the sales, others use Excel and information systems developed for this activity in order to help the managers of the post office to make decisions. The marketing manager claimed that the marketing sector of Omega Communication does not have the information available in the post offices.

For the contractual customers (normally enterprise customers), there is SAP software related to customer financial information - in this case, the company knows exactly the services and products required, and it has main payment information. The marketing manager highlighted that Omega Communication uses only the customer data related to invoicing. Nowadays, only two companies of the holding do not have the SAP software. This information enables the division of customers into segments, according to their dimension, the products they use, geographic area, and activity sector. The marketing sector explores the information and elaborates campaigns to support the commercial department.

The CIO argued that as Omega Communication is a large company, the CRM software suppliers frequently try to sell the package for them. According to him, these software houses are not concerned with the kind of business and the customer relationship. Another interviewed IS claimed that the solutions are very similar “CRM

functionalities of this package do not change and it does not cater to the Omega Communication business requirements”.

6.6.5 CRM learning process

Sharing information among sectors is considered the first problematic factor for the company to be successful with the CRM project. According to the marketing manager, if people classify the information as for all companies, it is easier to share. She said that the company makes relevant customer information available in IS for consultation purposes and, this has led to the whole company starting to use the system. One of the IS interviewees argued that working with projects that involve data from different areas in the company is complicated because people, in general, do not want to share data. He claims that IS activities must link people from different areas and show how they can improve their performance working together.

The IS interviewee argued that the mentality of people in the organisation must change in order to innovate IS structure. The administration of the company changes but their mentality does not change. She claims that Omega Communication is not ready to participate in a free market competition. The interviewee also explained that as the top managers change every three years – during the first year they are concerned with reducing costs, afterwards they must become familiar with the company, and when they are ready to think about projects like CRM (that involve all the company) it is time to change the administration again.

Omega Communication has had a bad experience with the CRM project. The marketing manager argued that people are traumatised by the “CRM word”. Nevertheless she defends the idea of launching a new CRM project, as the company is now in a different stage, being more prepared to be successful with this project.

According to one of the IS interviewees, the staff of Omega Communication has an aversion to the word “CRM”. Their experience with CRM technology is, practically, none, but the general idea is that a CRM information system is complex, expensive, time consuming and will completely change their routine. The interviewee argues that people in the company practice CRM all the time, they simply do not realise it, “CRM technology just facilitates organisational processes”.

The marketing manager argued that Omega Communication is now prepared to adopt a CRM system, because of the organisational processes and company’s values related to sharing information. Different departments of the company are aware that CRM adoption is a necessity. Sales people work with a broad product portfolio and they would like be more proactive in the customer relationship.

According to the marketing manager, CRM is an important strategy for Omega Communication to invest in, in order to establish an efficient relationship with customers. She argued that the strong financial investment in information technology is the first challenge to be observed. In the case of Omega Communication, the second problem refers to various companies that must share information about customers.

The marketing manager claimed that there is a need to have a group of consultants working together in Omega Communication project team in order to adopt CRM software. She criticised the fact that consultant teams normally ask internal staff for some information and return to the company a few weeks later with beautiful Power Point slides that do not say much about the progress of the project.

The IS interviewee started that he has never been involved in any successful interdisciplinary project. According to him, the company culture does not support the achievement of a common objective. The department manager does not really make employees available for a project. The company is not ready to work in the project

regime; he argued that committed sponsorship, empowerment and competent human resources are necessary for the CRM project.

The commercial manager said that for the CRM project to be successful, sponsorship must come from the sales department. He knows that marketing and sales will compete in order to be a CRM leader. The interviewee also argued that people from marketing, customer service, sales, finances and information technology must be involved in the project. According to him, only people from human resources need not be involved.

According to the marketing manager, the relationship among company departments is usually good. The manager claimed that the head of the CRM project must be a manager outside the information system department. She made the following comparison: “It is a mistake to choose a cook to make dinner and manage the party at the same time”. Information technology people are focused on technology and processes, marketing people are concerned with the kind of information that is relevant to collect from the customer, how the company can update this information, how this information can help the company be more competitive, argued the marketing manager. The IS department cannot be the sponsor of CRM project, according to the IS interviewee. She argued that in this way, business people are not committed enough.

The marketing manager claimed that a CRM system does not solve the company’s problems, “it is a technological tool that demands a strong financial investment but it also has to manage customer information within the whole company”.

In relation to the CRM critical factors of success, the marketing manager argued about the necessity (1) to develop a diagnostic related to enterprise information architecture and (2) customer data that already exist in the company. She also talked

about (3) the need for information about customers and (4) how people in the company can keep customer information updated.

Omega Communication managers are concerned with ethical issues related to the use of customer data. Some of its initiatives allow the company to be familiar with customer data (e.g. name, age, e-mail, address, work place, etc.) but these data are used only if the customer formally permits it. It is important to highlight that there are various ways of registering customer data, but all them are separate – a single customer database does not exist. According to the marketing manager, keeping the customer information updated in a system is a challenge. Omega Communication is concerned with this issue and prior to the initiation of any new CRM project, it must develop strategies to motivate the employees to be committed to this initiative.

6.7 Summary and Conclusion

In this chapter we presented our understanding of the five cases studied. We explained the context of each company, its involvement in the CRM issue and what each company learned from its CRM path. It is important to highlight that these cases neither have the same descriptive dimension, nor explore the same topics - because the companies have had different experiences with CRM and the researcher observation had a particular level of contact in each company. Although the companies operate in different sectors and have adopted different CRM software, we believe that we can learn from all the cases. The following table summarises the main characteristics of all cases. In the next chapter we present the analysis of these cases, structured in a CRM competences network. We emphasise Alfa Telecom's reality in the CRM competence network building, because this is the company to which we dedicated more time and got to know deeper. Nevertheless, the other companies are also important for the analysis.

Table 15. Summary: case studies

	Alfa Telecom	Beta Energy	Gama Telecom	Delta Telecom	Omega Communication
General description	<ul style="list-style-type: none"> - Telecommunication sector. - Market leader. - Ex-monopoly. 	<ul style="list-style-type: none"> - Energy industry. - Market leader. - Ex-monopoly. 	<ul style="list-style-type: none"> - Mobile communication company. - Market leader. - Free market. 	<ul style="list-style-type: none"> - Business unit of Gama Telecom. - Low-cost operation. - Free market. 	<ul style="list-style-type: none"> - Responsible for exploring the post office structure. - Communication sector. - Monopoly.
CRM perspective	<ul style="list-style-type: none"> - CRM goal: to answer market changes and to improve competitiveness. - CRM has more than 30 concepts in the company. 	<ul style="list-style-type: none"> - CRM goal: to offer a differentiated and personalised experience to the customers apart from their selected channel of contact. - Many employees perceive CRM only as software. 	<ul style="list-style-type: none"> - CRM goal: to improve company's competitiveness. - The company wants to be appreciated by customers in terms of its brand and innovation. 	<ul style="list-style-type: none"> - CRM is mission-critical. - The organisational concepts and processes are drawn to allow customer participation. 	<ul style="list-style-type: none"> - CRM goal: to manage customers' complaints. - The company has a CRM initiative, but without any software package. - People in the company are traumatised by the "CRM word" due to bad previous experience.
CRM business processes	<ul style="list-style-type: none"> - Initially used IDIP propose (Identify, Differentiate, Interact, and Personalise). - Today they have a new CRM project. 	<ul style="list-style-type: none"> - The company experienced 3 phases along CRM initiative: contact centre, customer relationship and, fidelity program. 	<ul style="list-style-type: none"> - An operational necessity (customer service area) resulted in a CRM project. - The first CRM project was a failure. 	<ul style="list-style-type: none"> - Slogan: "the best relation with the customer". - The company tries to learn from its customers through surveys. - Delta neither works with new tariff plans nor has its own fidelity card. - Contact centre service (outsourcing) is critical, and the partner is not efficient enough. 	<ul style="list-style-type: none"> - CRM is viewed as an opportunity for the company to win customer fidelity. - Omega has two kinds of customers: occasional and contractual. They are interested in establishing a close relationship with the contractual customers. - Customer complaints are a challenge to Omega.
Information system for	<ul style="list-style-type: none"> - CRM software is important to obtain 	<ul style="list-style-type: none"> - CRM software is considered relevant but 	<ul style="list-style-type: none"> - The company was pioneer in Portugal in CRM 	<ul style="list-style-type: none"> - CRM software of Delta is considered very simple. 	<ul style="list-style-type: none"> - IS department has been developing various systems

Table 15 (continue).

	Alfa Telecom	Beta Energy	Gama Telecom	Delta Telecom	Omega Communication
CRM	operational efficiency. - They can neither count on an integrated customer database nor quality customer data.	not more critical than ERP. - Sometimes IS people do not have time to attend marketing needs. - Nowadays marketing sector is pro-active to helping the IS area (rethink business requirements and processes).	software implementation. - At that time, the technology was not mature enough. - The company spent a lot of money and effort to customise the software. - The company started the CRM project software implementation three times.	- The software is open source. - They register seven different customer attributes. - Delta uses analytic CRM tools to observe customer tendencies.	that help company to deal with customers. The integration of these systems is a problem. - They need to establish an integrated IT architecture. - The CRM packages do not cater to Omega requirements.
CRM learning process	- Sales people must participate in customer business as a consultant. - IS people must be concerned with business requirements and not concentrate on the most recent technology only. - Organisational processes must respond to customer requirements. - It is crucial to learn how to work in a multidisciplinary projects.	- It was a mistake for the IT department to sponsor the CRM project. - A gradual implementation of a CRM system is more adequate than a broad functional scope. - The decision of customised software was a problem – the team learned to observe the best practices inserted into the system package. - IT department needs to be subordinate to the business area.	- The main CRM adoption problems were: inadequate scope of software, inadequate risk management and inadequate project schedule. - They learn how to deal with consulting partners: consultants try to maximise his/her hours; they use their prescriptive models. - The company delegated the responsibility for success of the project to an IT consultancy company – it was a mistake.	- The company is a successful mobile telecommunications service case study in Portugal: Delta sells its business model. - They learnt about the importance of CRM project sponsorship. - They have a very simple organisational processes that involve customers. - The prototype of CRM software was tested by users. - The involvement of the users in the project and the selection of correct partners is crucial.	- Sharing information among sectors is crucial for CRM project. - The mentality of people must change to innovate cultural values and IS structure. - Employees must be available for CRM project adoption. - The company must learn how to work in the project regime. - It is necessary: committed sponsorship, empowerment and competent human resources. - CRM project must be managed outside the IS department.

CHAPTER VII

Case Studies Data Analysis – The Research Contribution

7.1. Introduction

This chapter discusses and interprets the data collected in the case studies. Using a phenomenological approach, we introduce the research contribution that emerges from the case studies and the previous literature.

First, we present the analysis of CRM organisational net competences based on the Value Focus Thinking approach. In the second part of this chapter, the Dynamic Capability theory is applied to describe the customer relationship management organisational capability. All elements proposed here are based on the case studies carried out in Portugal.

7.2. CRM organisational net competences

The objective of this sub chapter is to analyse which organisational competences are related to a successful CRM adoption. We use the “value focus thinking” approach, presented previously, to identify values, objectives and competences related to CRM success.

In the last analysis “value-focused thinking” (Keeney, 1992, 1994) was used in order to understand the competences that are needed to enable the successful adoption of CRM in organisations. Keeney (1994) recognises that strategic thinkers have long admitted the need to clarify values. Companies that have either adopted a CRM strategy or are thinking about it seek to get a close relationships with their customers. They also need to understand what their expectations are regarding CRM and what they have to do

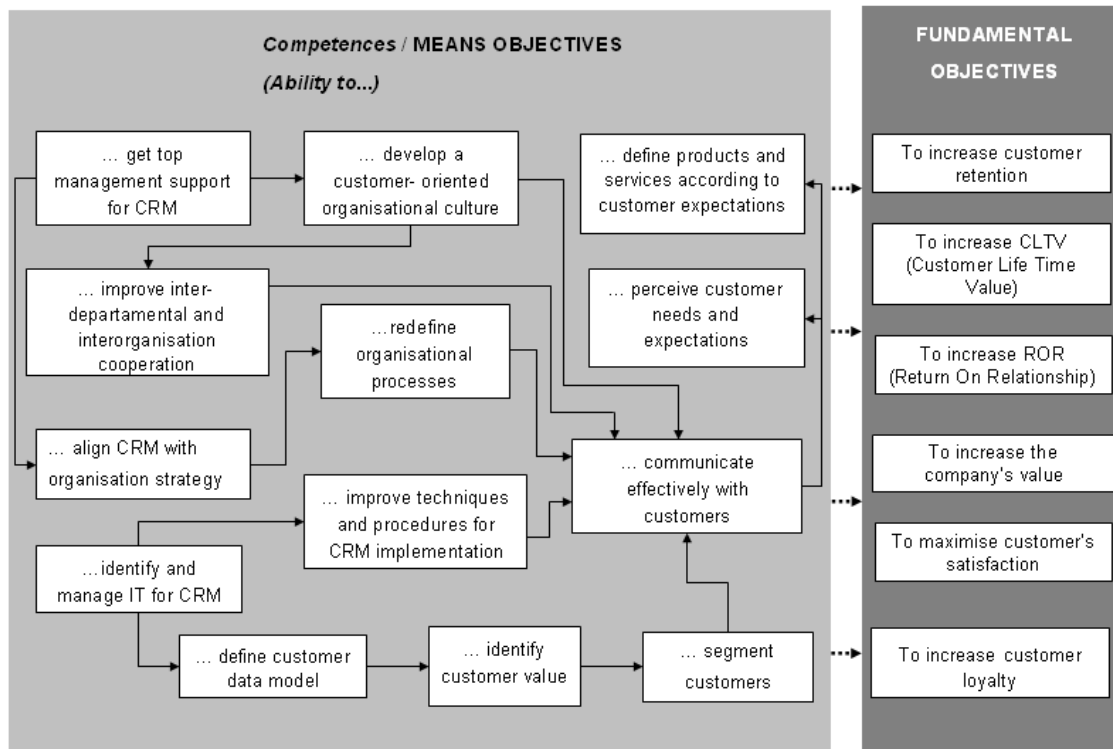
to achieve it. In other words, they must realise which values are a foundation for such a CRM initiative.

We followed the same methodology proposed by Keeney (1992, 1994) and adopted by Dhillon and Torkzadeh (2006) and Dhillon and Caldeira (2007). Our ultimate goal was to propose a structure to orchestrate organisational competences. The first step of CRM network competences was to create a list of values that had been expressed in the interviewees' speech. The second phase of this process was to identify the objectives related to each value. Then, we put similar objectives together in order to propose clusters of objectives. As the third step, we observed which organisational competences interviewees think were important for CRM success and elaborated a competence network. All these steps are presented in detail in Appendix C. In order to propose this network we use the WITI test (Keeney, 1994), whose relations are explained in Appendix D.

Keeney (1992) divides objectives into two groups: (1) Fundamental objectives, which are the ultimate goal, and could not possibly impact on another objective, and (2) Means objectives, which, on the other hand, could possibly result in another objective.

CRM fundamental objectives are important for the development of a CRM competence network. These fundamental objectives are explicit or implicit in the interviews, and we can also find them in the CRM literature. The means objectives are related to the competences that a company must develop in order to achieve the fundamental objectives. We identified 13 organisational competences. We will discuss them in detail in accordance with the previous literature and data collected in the cases studies.

Figure 11. Network of competences for CRM



The fundamental objectives are considered the final organisational goals that a company must have in order to obtain CRM success. These objectives were discussed in the referential theoretical part of this work but will be briefly described in the next paragraphs.

To increase customer retention: the main objective of CRM initiative is to maintain customer for a long period of time (Peppers and Rogers, 2004). Companies minimise their operational costs to attend customers that already know the company. The company can respond to demand for services and products, as well as organise their resources more effectively, etc.

To increase Customer Life Time Value (CLTV or CLV): this marketing metric emphasises long-term customer satisfaction rather than maximising short term sales (Peppard, 2000; Ryals and Payne, 2001; Zikmund et al., 2003). This is related to the present value of the future cash flows due to customer relationship.

Figure 12. Customer Lifetime Value formulation

$$CLV = \sum_{t=0}^T \frac{(p_t - c_t)r_t}{(1+i)^t} - AC$$

Source: Gupta et al. (2006, p.141)

Where

p_t = price paid by a consumer at time t ,

c_t = direct cost of servicing the customer at time t ,

i = discount rate or cost of capital for the firm,

r_t = probability of customer repeat buying or being “alive” at time t ,

AC = acquisition cost, and

T = time horizon for estimating CLV

CLTV is a metric that can identify profitable customers and allocate organisational resources accordingly. This metric expresses the company’s concern about current and future customers and shows that a firm’s marketing actions influence customer behaviour (Gupta et al., 2006; Kale, 2004).

To increase ROR (Return On Relationship): this is a subjective metric that refers to the ability to compare the effects of CRM on customer value and loyalty, before and after CRM implementation (Dyché, 2002). With this metric, companies can identify which elements of CRM improve customer relationships (business processes, human resources training, fidelity program, etc.).

To increase the company’s value: this is related to maximising the company’s value to shareholders (Payne, 2006). In a CRM strategy it is expected that the value of both sides of the dyad (customer and company) will increase. Adebanjo (2003) and Bohling et al. (2006) argue that CRM objectives improve the operational effectiveness of the organisation and deliver value to the organisation.

To maximise customer's satisfaction: Companies want to maximise customer satisfaction in order to generate the maximum profit (Dous et al., 2005). Zikmund et al. (2003, p.72) state that customer satisfaction refers to the post-purchase evaluation that results “from a comparison between those pre-purchase expectations and actual performance”.

To increase customer loyalty: Companies want to increase customer loyalty (Zikmund et al., 2003; Zablah et al., 2004; Payne, 2006). According to Zickmund et al. (2003, p.69) customer loyalty refers “to a customer's commitment or attachment to a brand, store, manufacturer, service provider, or other entity based on favourable attitudes and behavioural responses, such as repeat purchases”. Customers are loyal to a brand or a company if they have a positive attitude towards it and they prefer to buy from the company rather than from its competitors (Peppers and Rogers, 2004).

In order to achieve these fundamental objectives companies must attend to a group of “means objectives”. The means objectives allow the fundamental objectives to appear, and represent organisational competences that must be developed in a company in order to obtain a successful CRM initiative. In this research we have found thirteen CRM competences that will be discussed.

7.2.1. Ability to perceive customer needs and expectations

This competence is related to interpreting customers' expectations or predicting their behaviour. Several authors (Day, 2000; Gummesson, 1998; Peppers and Rogers, 2004) discuss the importance of developing a long-term relationship with customers. Therefore, observing the customer's life-cycle is extremely relevant (Rigby and Ledinghan, 2004) and it involves the reorganisation of business processes in several areas: sales, marketing, customer care, etc. (Chalmeta, 2006). A company must be proactive to maximise profit by understanding customers' needs in different stages of

their life. According to a customer care manager of Alfa Telecom, “it is necessary to know exactly who the customer is. It implies knowing their names, needs, behaviour characteristics, and the type of products and services they normally use, in order to be able to differentiate. If the company has customer information, it is able to offer a tailored product and service”.

Employees who interact with customers are in a good position to understand customers’ needs and expectations (Buttle, 2004). He argues that people who interact with a customer must learn what the customer feels, in a simple and pragmatic way. Some customers’ feelings are difficult to identify by analysing customer data through analytical processes. CRM analytics can offer patterns and list customers’ needs, but people that work in the front-office are in a better position to know exactly what the customer’s needs and wishes are. A customer care manager reported that, in his opinion, people in the front-office usually work in a stressful environment, which doesn’t help in understanding customers’ expectations. Developing and managing a good relationship with customers and the systematisation of their real needs is seen as extremely important.

It is important to highlight that while Delta Telecom holds an organisational value to listen to the customer voice in order to build its company’s strategy, other companies are more focused on the book of complaints. This is a major source of observations related to what a customer would like to change in the company.

7.2.2. Ability to define products and services according to customer expectations

This competence refers to an organisation’s ability to offer a product or a service that meets or exceeds the customer’s expectations. This also includes the time notion established by a customer. According to Buttle (2004), it involves identifying sources of value for customers and creating a proposition (products and services) that meets

customers' requirements, expectations and preferences. This competence is related to the ability to perceive customer needs and expectations in order to offer an appropriate solution for them.

One output offered by CRM is the development of new products and new services for customers. Therefore, all enterprise departments must work together, acting as a Research & Development department to capture new customers' ideas and elaborate new products and services. According to a Delta Telecom customer care interviewee, the company based its strategy on new products and services, not according to the new technology in the market but according to the customer's needs and to what employees believe is needed in the telecommunications market.

The adoption of CRM status can offer a company new ways to interact with a customer. An example is the ability to generate and rank Frequently Asked Questions (FAQ) lists. FAQ lists can be viewed as a knowledge management initiative where different companies' people develop lists enabling service agents to find the most relevant information to resolve customer requests quickly.

For example, some years ago, Beta Energy created a fleet card available to enterprise customers. This was a sort of a credit card. Each enterprise distributed the fleet cards to its employees, allowing them to obtain a certain amount of petrol in Beta Energy petrol stations. So far, any card misuse reported to the Contact Centre (for example, cards stolen or lost) has met with an inefficient process of deactivation. The card cancellation procedure is not done through the Internet or in a real time, thus leaving the way open for fraudulent activities. Such a situation has been of concern to the customers because it can cause them financial damage. At the same time it has become a source of stress for Contact Centre operators. The company is conscious of

this limitation and plans to have an on-line deactivation process working within the next months, since it is concerned with customer satisfaction.

Some authors (Dibb and Meadows, 2004; Chalmeta, 2006; Payne, 2006) discuss the importance of the staff being able to learn new ways of working with customers each day, in order to suggest new processes, use new information technologies, and offer new products and services to a customer. A customer's affection management and customer data systematisation represent the relationship between the enterprise and customers (Dibb and Meadows, 2004; Chalmeta, 2006; Payne, 2006).

In order to offer a product or a service that meets or exceeds a customer's expectations, a sales agent must incorporate customer information in their work routine. A CRM manager of Alfa Telecom highlighted the importance of being more than familiar with a company's service and product portfolio; employees' full incorporation of back office customer information in their work routine is essential to take better care of a customer. An analytic CRM manager of Alfa Telecom said that people in a front office must be able to use the customer information that the CRM department offers, only then can the company be successful.

7.2.3. Ability to align CRM with business strategy

This competence is related to the ability to define a customer-focused strategy and communicate the strategy widely throughout the organisation. This competence is the basis of other CRM competences in the companies.

According to Coltman (2007) companies must decide whether the CRM program will be the thrust of their strategy or a subordinate element. Bohling et al. (2006) talk about the importance of integrating CRM strategy and programs with a business's marketing strategy.

CRM Alfa Telecom manager argued that the top managers of the company have not defined what the company wants with this initiative and employees do not perceive the importance of customer relationship. The same was observed in the objectives defined for each employee. In general, the objectives do not cover customer relationship issues. At the other extreme is Delta Telecom. This company is concerned with CRM concepts and has these characteristics well defined in its strategy.

The company's customer management strategy must be formulated and clearly understood by all staff. This means careful attention must be paid to corporate culture, leadership practices, collaboration methods, training programs, and performance measurement approaches. Bohling et al. (2006) argue that aligning CRM initiatives with employee objectives is a critical factor for CRM adoption.

The staff who interact with customers must receive clear directions and information about how to serve customers best, as well as about inappropriate behaviour which might result in harming the image of the company in the customers' mind. It is important to highlight that if a company has a call centre in outsourcing, it needs to invest the same effort in partner training as in its own employees. The employees must receive easy-to-use materials in order to enhance or refresh their knowledge with respect to customer management processes and technologies.

7.2.4. Ability to define organisational processes

This competence refers to rethinking organisational processes with a consistent customer view. Within each process a company can elaborate metrics, rewards and incentives to focus people on increasing customer relevance and value.

According to Coltman (2007), what managers must observe in a CRM adoption is the tension between new customer relationship strategies and existing forms, systems

and resources. Bohling et al. (2006, p.190) also observe that CRM project success can be “hampered due to a resistance to change at various levels of the organisation”.

Particularly in the case of a traditional company, such as Alfa Telecom, Beta Energy and Omega Communications, this competence is critical to other CRM organisational competences. As we have stated before, organisational processes articulate different departments of a given company in order to create and offer value to customers.

Alfa Telecom’s IS interviewees have made an important contribution observing that nowadays customers participate in the organisational processes and establish the velocity and efficacy of patterns that are acceptable.

7.2.5. Ability to develop a customer-oriented organisational culture

Many companies that adopt CRM normally focus their strategy on their products. This competence refers to the ability to change such a view: to become customer-focused. In this way, organisational structures must encourage a direct line of sight to specific customer audiences in order to comply with buyers’ needs and expectations.

Delivering customer experience starts with a careful definition of organisational strategy that must emphasise customer importance for a company. Afterwards, a company must find the way it intends to differentiate the organisation in the buyers’ mind. This vision needs to be shared with and embraced by all staff members, especially by those who interact with customers.

According to Bohling et al. (2006), the success of CRM is strongly associated with CRM ownership being at corporate level. In other words, people in the organisation must observe that CRM is not a single departmental initiative.

This competence is declared as the key challenge for traditional companies. Omega Communication interviewees argue that when they tried to adopt CRM they realised that their culture was not prepared for this kind of organisational approach. The same

was perceived by Alfa Telecom and Beta Energy, both of whom have passed through different CRM adoption initiatives.

Except for Gama and Delta Telecom, which are relatively new companies that were founded after the liberalisation of telecommunication market in Portugal, the other companies had a common problem: when the CRM adoption project was launched, employees were used to calling the customer a “user”, without any personal attention. Such an attitude was the result of the monopolistic situation that the three companies had experienced in the past. In these three companies the concept “customer oriented” is considered recent.

7.2.6. Ability to get top management support for CRM

A company must have leadership practices to demonstrate full support across all levels of management for CRM initiatives. In relation to “leadership”, senior-level sponsorship is critical to the success of any far reaching transformation initiative, including a motivation to become more customer-centred.

Often top managers agree to invest in CRM initiatives only if a well conducted business case is presented by tactical managers. The business case also helps the managers to assist tracking and monitoring progress of the CRM project (Bohling et al., 2006).

In CRM initiatives it is important for employees to receive customer feedback on a regular basis, in order to gain an internal perception of the customer experience.

The interviewees gave us some temporal evidence related to the leadership commitment to CRM adoption. At Alfa Telecom, the beginning of the CRM project was the initiative of a top manager and this project lost power when the company administration changed. The same happened at Beta Energy and Omega

Communication. As CRM is a long term initiative, alignment between different leaders with regard to company customer orientation is very important.

7.2.7. Ability to segment customers

This competence depends on a company's effort to develop an abstract mechanism that helps to classify and separate customers into clusters, according to their specific characteristics, in other words, extracting and creating different segments in customer databases (Crosby, 2002; Peppers and Rogers, 2004). Good customer segmentation improves targeting high-potential customers and delivery of relevant marketing messages. In order to achieve this objective, the use of IT to monitor segmentation in marketing campaigns is important. Good customer segmentation means offering products and services according to the needs of the most relevant groups of customers.

Nowadays, Alfa Telecom uses the IDIP (Identify, Differentiate, Interact and Personalise) model proposed by Peppers and Rogers Consulting Group. This model guides the company towards organising its structure in order to identify customer attributes.

An IS manager of Alfa Telecom believes that a different kind of customer segmentation is needed in order to win a customer. According to his view, a customer must be segmented according to his/her context. The IS manager cited the example of a customer who is both an enterprise and residential at the same time. He complains that the current customer segmentation model developed by marketers does not allow the company to have a complete view of the customer.

While all the cases studied found a way to segment their customers, Delta Telecom, who values simplicity, practice and economy, has not yet found a "correct" way to segment its customers. Nowadays, all customers receive the same treatment, and the

customer care manager complains about the segmentation concept not being easy to fit within their CRM philosophy.

7.2.8. Ability to communicate effectively

This competence refers to the ability to establish a partnership with individual and entrepreneur customers. Gummesson (1998) claims that CRM is a “win-win” strategy, because it values a customer as a partner and an esteemed co-producer of value. The fundamental CRM idea is to deliver a truly “personalised” customer experience. Customers want to deal with agents with appropriate skills and knowledge in order to receive an adequate solution to their problems.

A front line employee can use customer behaviour patterns and respond to them based on an up-to-date view of the relationship. The users, according to the analytic CRM manager of Alfa Telecom, can have tools for monitoring operations in real time that enable them to receive some insights and note key exceptions that can help them in their interactions with customers.

A marketing manager of Alfa Telecom highlights the importance of the personal characteristics of the people in a front office, like politeness, good manners and motivation. According to him, “without these personal characteristics the sales offer may be excellent, but the customer may not be receptive”. The combination between front-office and back office competences leads to a more efficient and flexible way of managing the workload of the Customer Relationship Centre operators. Nowadays, both teams are considered part of the same solution, and both receive training so that they can be used for front-office and/or back-office activities, depending on the existing workload. Ultimately, one can be assigned to the front office during a peak-hour of the day (e.g. 9 to 9:30h) and relocated to a back-office task during another period of the day. This flexibility tends to make the management of team allocation easier.

The ability to conduct a valuable relationship with a customer also includes the idea of transforming a poor customer experience into the improvement of relationship. This competence requires a better understanding of customer needs and a more proactive sales force (Rigby et al., 2002; Rigby and Ledinghan, 2004). This is considered a big challenge that is much more crucial than the use of software. The employee needs to be sensitive to manage sales and marketing information about customer requirements, expectations and perceptions in real time (Rigby et al., 2002).

An IT professional interviewed in Alfa Telecom said, “transforming a negative customer contact into a positive one is a great challenge for people who attend to a customer in a front-office”. According to him, while there is a need for knowledge of the information system and company selling processes, there is a greater need for talented personnel to conduct customer relationships. He affirms that such a characteristic is increasingly more uncommon among people who work in the Alfa Telecom front office. He gives the following reasons for this situation: (1) people limit the time spent attending a customer (the faster the better); (2) in general, people in the call centre are poorly qualified; (3) people must use many different information systems; and (4) the call centre staff rotate a lot (temporary workers). In consequence, all these characteristics result in a bad quality relationship.

A manager of Alfa Telecom who works directly with a large business customer said that the company is a partner for the customer, trying to establish commitment and confidence. He said that “if the business customer wins and becomes well positioned in its market, Alfa Telecom is a winner as well”. If company offers a customised solution to a business customer, it is highly unlikely that the customer will change to another telecommunications service supplier. Considering the employees that work directly with residential customers, Alfa Telecom offers internal information in order to help conduct

the interaction with customer, like the customer value score, the products and services that customer already has and some portfolio options that he/she would probably be interested in. Nevertheless, the CRM analytic manager claimed that an employee who is interacting with a customer can observe the situation (if a customer has time, motivation to buy, etc.) and manage the relationship with a customer accordingly. The employee's sensitivity is the key factor of success, according to the interviewee.

7.2.9. Ability to improve inter-departmental and inter-organisation cooperation

This competence refers to the inter-departmental and inter-organisational collaboration. In order to deliver a good customer service, all parts of the enterprise (and their partners) need to cooperate and communicate, sharing customer data and experience.

Sharing customers' information among different sectors in the organisation is important (Dibb and Meadows, 2004; Chalmeta, 2006; Payne, 2006). Employees are usually the building blocks of customer relationships. This strategy requires sharing information among different departments in order to construct a picture of the firm's total relationship with the customer (Ryals and Knox, 2001). This competence was identified as the most critical factor in Omega Communication's adoption of CRM strategy. Many of the interviewees emphasised that the holding has difficulties in sharing information among their companies and in internal departments.

One of the IT managers of Alfa Telecom who was interviewed referred to top manager initiative to facilitate internal communication. With this initiative, they hope to unify cultural niches by creating a unique organisational culture. The interviewee said that despite improvements in organisational communication over the last years, the company continues to be divided into many different groups (each one with their own culture and objectives) and internal communication is a barrier that affects CRM

success. The operational CRM manager said that Alfa Telecom is far from having a good relationship among departments and colleagues. According to him, “it is important to change the company structure, create mechanisms, and adopt IT for the improvement of the customer knowledge management”.

Communication between IT and business people is critical in a CRM initiative. The collaboration between these two departments can result in IT solutions that meet the customer needs of the business. The CRM manager of Alfa Telecom created some mechanisms to improve communication among people in the CRM department. Each new project must be registered in a special space on the intranet, and people who work in a related area of the project must receive an e-mail about it. He suggested expanding this mechanism to a technical area in order to share knowledge on a specific project, but the director of the technical area did not support him. The CRM area offered new processes and new technologies in order to increase commercial area capacity. An example is the geographic system for scheduling the visits of sales consultants. In this specific situation the communication and integration among the departments achieved good results.

7.2.10. Ability to define customer value

This ability is related to the way a company organises itself in order to evaluate customer value. In order to analyse Alfa Telecom’s organisational processes of customer differentiation, a group of activities is relevant: (1) identification of the customer, (2) identifying customer value, (3) application of pre-established analytic models to classify a customer and offer appropriate treatment. The challenging task is to define the way to formulate the value customer equation, that is, which customer attributes are of greater importance. After implementing all these activities, it is crucial to prepare the customer value index available for all customer contact points. According

to the CRM manager of Alfa Telecom, today there is a unique view about what customer value means to a company: “Value is Euro!” The value equation takes into account the customer’s future value and is closely related to the customer’s propensity models. The interviewees from the CRM area believe that the customer value index helps sales and marketing people to be more assertive.

The pop-up is a technological capacity that brings relevant data about the calling customer to the operator screen. In Telecoms this is a “take for granted” capacity, because the customer identification can be easily captured. By contrast, customers from Beta Energy mass-market are not easily identified, as they can call from any place, or from any non-personal telephone device. Therefore, the Customer Relationship Centre manager of Beta Energy reported that the company stopped a pop-up initiative in 2004, because of the insufficient return it revealed in terms of potential pro-active marketing initiatives. When Call Centre operators ask for a customer to identify himself, people sometimes prefer to stay anonymous if what they want to know does not require identification.

7.2.11. Ability to improve techniques and procedures for CRM implementation

A company needs to plan the kind of relationship it wants to establish with its customers, the answer each incident will generate, and the main rules contact centre and sales people must observe, etc. This competence also refers to an ability to elaborate a marketing methodology - best practices, processes, templates, models - in order to structure a customer relationship model for a company. It includes: (1) Marketing campaign design - the ability to build complex business-rule and workflow-driven communication sequences (appropriate marketing messages, in the right sequence, to the right audiences); (2) Ability to effectively manage and match calls/emails to the caller in a well structured service centre (this includes phone contact centres and other

channels like the web customer service); (3) Ability to manage and respond to a high volume of incoming email correspondence, including the customer's notion of time; and (4) Defining KPIs (Key Performance Indicators) related to the achievements of the program in light of the desired final results.

The loyalty scheme must be planned by a company in order to improve customers' loyalty and profitability. With a CRM strategy, the company is interested in maintaining the best customers and increasing their value. In order to achieve this, it is necessary to plan new products, new services and new ways to interact with customers. One of the managers interviewed highlighted the importance of competitors, which obliges the company to adapt to market changes and become more innovative. According to the manager responsible for this particular ability in Alfa Telecom, the CRM area follows a methodology in order to develop this organisational competence. The methodology is especially important when distinct sectors (like the sales sector and marketing sector) have opposing opinions related to a specific and strategic organisational action. Generally, the CRM area invites representatives from marketing, sales and technical areas to participate in a brainstorm meeting. Prior to this event, people from the CRM area work and discuss the ideas in order to define a priority list. According to the manager, this does not only mean a conceptual test of new CRM ideas, but a real test, where they measure financial impacts and costs. According to the people that work in the CRM area, this kind of methodology helps a company to differentiate between competitors and minimise the risks of failing.

Focusing on building a team orientation and bringing various units of the company together is necessary for a company to define customer relationship techniques and procedures (Raman et al., 2006). According to people interviewed at Alfa Telecom, some activities are required: (1) conduct a pilot test related to a new CRM action idea;

(2) prove the financial fluency of a new project to the top managers; and (3) motivate managers from different sectors, which gives the necessary empowerment to employees that work in a CRM project group. A problem discussed by an interviewed manager was connected with poor power delegation to people who are engaged in a multifunctional CRM project. As people working with such a project do not receive enough autonomy from their original sector's manager, they work with a CRM project in their spare time, after finishing their regular activities.

Beta Energy is a holding that has integrated different businesses. Therefore coming up with a unified Customer Relationship Centre that is able to integrate different business logics, unrelated products and services, and customer relationship with diverse maturity levels has been a great challenge. Since 2005, the Beta Energy Customer Relationship Centre manager has conducted frequent open sessions with personnel from almost all areas, trying to explain the real value added to the company in having a good Customer Relationship Centre operation. This manager is convinced that an effective communication plan is one of the key enablers to CRM project success.

The ability to manage different customer contact channels is a challenging organisational competence. It is related to management and synchronisation of all the different customer contact channels (letters, call centre, and direct contact, etc.). They must use the same customer database and incorporate the company's value in relation to a customer in their routine. In Beta Energy the Contact Centre is gradually acting as a Customer Relationship Centre unit. This role reinforces the need to manage two interfaces: first, the relationship with the customer, considered a unified entity; and second, the relationship with the internal organisation business units. Beta Energy has its Customer Relationship Centre managed by an outsourcer. Some Key Performance Indicators are contractually agreed upon and carefully measured (e.g. average waiting

time per incoming call). Beta Energy's Customer Relationship Centre has also begun to establish service levels with the company's internal business units. According to the Customer Relationship Centre manager of Beta Energy, the Customer Relationship Centre unit exerts pressure to upgrade the quality standards of both sides in the interface. Additionally, it promotes the standardisation of procedures and practices of the business units, namely those that do not rely on complex decision making processes.

The creation of different ways of customer communication with a company is an important issue. In order to offer a great customer experience, companies must coordinate perfect interaction across both outbound and inbound channels. According to the Customer Relationship Centre manager of Beta Energy, the relationship with customers can be approached from two perspectives: One in which the Contact Centre plays a technological role, and the other which combines the Contact Centre approach with a CRM philosophical view. Companies that manage a Contact Centre should know how to establish and maintain a one-to-one relationship with their customers. The CRM presence can be recognised when a formal process of governing the relationship with the customer occurs. In addition, a company is supposed to have an integrated view of its customer base, with the capacity to manage this relationship in a multi-channel perspective. A CRM presence is strongly linked with a computer-based solution capable of manipulating large volumes of data and transversal processes related to customers. With a CRM practice, a company allows for visualisation of its organisational structure and business processes. As a consequence, customers perceive a strong transparency in the relationship.

According to the Customer Relationship Centre manager of Beta Energy, two different types of competences can be distinguished regarding his sector, namely those related to the front and the back office. The former ones, which are directly related to

inbound calls, are considered “non-stockable” because they are not being controlled by the company itself and they are commonly associated with unpredictable events (e.g. fires, energy cuts, earth quakes). The latter - back office stockable competences - are controllable by the company in terms of both their organisation and pace of running. Back-office activities are subject to planning and include tasks like outbound calls, marketing campaigns, fax, email, and website management. The better the management of the stockable activities, the more effective the resource planning for the functioning of the customer relationship centre.

A very useful technique to know a customer in CRM projects is data collection. It includes the ability to plan the timing of the customer data collection. The main questions are: “When? How? Where?” According to Payne (2006), this process becomes natural with time, despite being dynamic. In relation to residential customers, a company normally collects data using a Call Centre during a new selling campaign. According to an employee that works in the CRM area at Alfa Telecom, during the “Small Office Home Office (SOHO)” segment campaign, they are trying to obtain data such as the name of the decision maker, electronic address, and alternative contact (mobile phone) of a SOHO segment. However, during the same interaction they try to obtain the customer’s economic activity and the number of computers. With such initial data it is possible to make a more focused offer.

According to the Customer Relationship Centre manager of Beta Energy, integration of CRM operations becomes simpler, more reliable and manageable if each area makes an effort to standardise its internal processes and procedures, especially the ones that are strongly related to customers (e.g. product specifications). When this work is properly done understanding and establishing internal service levels is easier for the Customer Relationship Centre. With these organisational outcomes in place, it becomes

easier to streamline the interface between customer requests (especially the atypical ones) and the business units. It also allows the establishment of service levels with the Customer Relationship Centre outsourcer and the most valuable customers.

The issue of customer privacy calls for attention. In Alfa Telecom some rules are applied such as: 1) if the customer does not accept being contacted, he/she will never be included in a call campaign; 2) if today a customer receives an advertisement, he/she will only be contacted again in two months. But, for example, if a customer asks a company not to return a call to him/her after 8 p.m., the call centre agent does not have a special place to insert this information in a CRM system, regrets the CRM analytics manager. This interviewee would also like to contact customers by the channel of their choice. Today the IT CRM tool cannot handle this information and the company does not have any initiative in this direction. State legislation does not allow a company to interact with customers that have old contracts.

7.2.12. Ability to define customer data models

According to Sheth and Parvatiyar (2002), the focus of Relationship Marketing is customer behaviour (mainly purchase and payment behaviour) perception. Apart from that, companies are interested in obtaining knowledge of customer data that helps to manage its companies' marketing action.

Defining a customer data model is a challenge because, in general, various kinds of data may be relevant for a company. The CRM manager of Alfa Telecom asked people from different sectors to note down the main customer data. In the first week he had a list of 600 different kinds of customer data. He asked people again to investigate the data requested and justify why it was important to be collected. This exercise helps a company analyse what it is really critical to know about customer. According to one of Delta Telecom managers, the number of customer attributes in the system is also part of

its strategy. The company keeps the minimum customer data in order to maintain the file fully up to date and really use the information. This situation contrasts with other companies studied that keep more than 100 customer attributes in their system.

Another important aspect related to this competence is the dynamic nature of a customer data model. Nowadays, companies must observe that customers change their data over time and a new kind of customer data may be important in order to propose a new product or service.

7.2.13. Ability to identify and manage IT for CRM

The main idea of this competence is to choose, adopt and manage IT in order to help a company to improve the relationship with a customer. The IT must enable a single view of the customer across all systems and platforms, so that a company has a 360 degree view of the customer.

It includes (1) customer information analytic tools in order to be able to unlock the power of customer data through customer analysis; (2) customer data availability, which means making customer information/data available in a real-time mode; and (3) customer data accuracy which means keeping master customer information consistent in all customer repositories.

The IT department has a set of activities related to selecting and managing user-friendly applications (an intuitive look and easy navigation), building a sound network infrastructure (the availability and reliability must be robust), maintaining system availability and reliability (for front line personnel to have access to relevant and timely customer information at the point of interaction), and using good project management practices in order to underpin customer management capabilities effectively.

This competence also refers to IT project management being able to take into account all previous activities that must be developed to redesign processes according to

customer-facing processes. Robust customer-facing processes must be thought out and designed in alignment with the new technology. It also includes the practices leading to technological projects that go over budget; they must be timely, and meet important user requirements.

One problem explained by the Alfa Telecom IT manager is that a CRM project is conducted by IT people. This reason is given to explain the failure of previous CRM projects. Alfa Telecom is starting a new CRM project and again, it is the IT group who is conducting this initiative. The interviewee believes that the reason for a top manager choosing IT people to start a new CRM project is the IT's pragmatic view. Interviewees of other companies also argue that CRM should not be managed by IT people; they should only indicate the best technological solution available in the market. The hybrid profile, related to technical knowledge and business knowledge is considered a differential for CRM project success according to many interviewees.

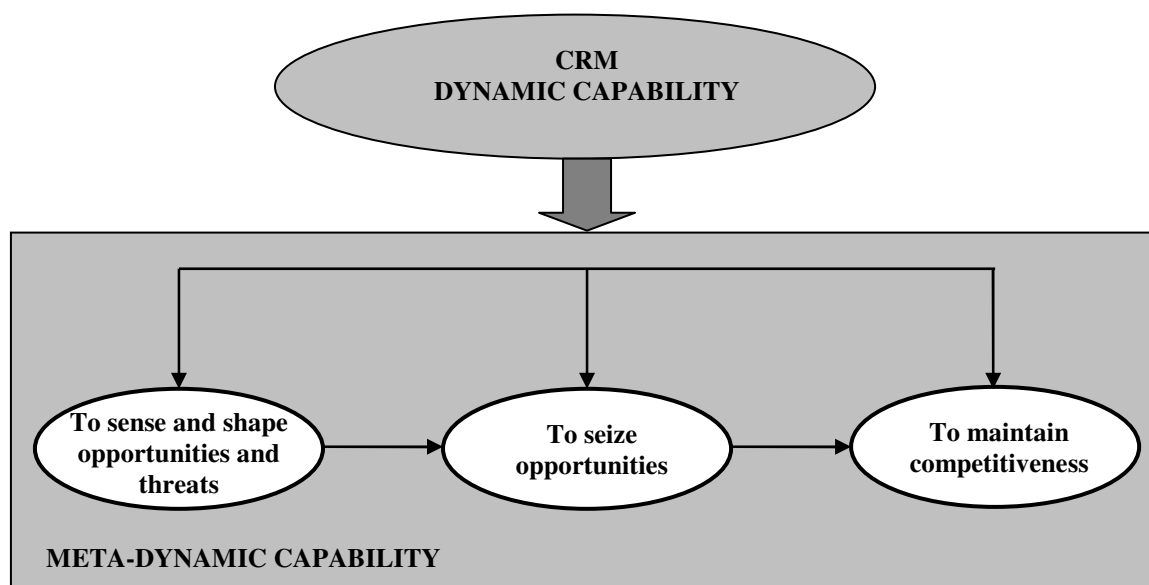
7.3. CRM Dynamic Capability Framework

Teece (2007) proposes a framework to develop an organisational dynamic capability. Our purpose is to develop a similar framework for a CRM dynamic capability, by the CRM concepts and the empirical evidence collected in the case of Alfa Telecom company.

We adopt the Coltman (2007, p.303) CRM capability concept: "CRM capability represents deliberate and persistent investments in a combination on human, technical, and business related capabilities". The author highlights that CRM capabilities are difficult to measure because they are intricate organisational and are organisational processes dependent.

Figure 13 presents a theoretical model with meta-dynamic capabilities which make a “CRM Dynamic Capability”. Each meta-dynamic capability is presented in detail considering Alfa Telecom evidence.

Figure 13. Framework of CRM Dynamic Capability



Source: Adapted from Pedron and Caldeira (2008)

7.3.1. To sense and shape opportunities and threats

This meta-capability analyses the existence of opportunities and threats. Generally, threats appear when the ecosystem around the company changes. In relation to customer relationship issues, Alfa Telecom observed the ecosystem movement at the end of the monopoly period. Nowadays, the company had to go through a reorganisation of the organisation in order to operate in a free market. According to the interviewees, Alfa Telecom took a long time to realise that a change was desirable in order to be competitive. In 2002, telecom professionals with expertise and experience in CRM adoption were contracted to launch a CRM project at Alfa Telecom. They organised a team with international strategic CRM consultants and IT consultants.

People that worked in the company in that period remembered that CRM was a priority for top managers, who were totally committed to the new concepts. A marketing manager interviewed says that the support of top managers at that moment was the only chance to change the existing paradigm in the company. He claims that they had to change organisational processes, and the CRM concepts clashed with Alfa Telecom culture. In 2002, the CRM team faced a hard task, mainly because people were used to work with strong values according to their monopolistic views.

Alfa Telecom has been trying to improve customer relationships since 2002, when the CRM adoption project was launched. The interviewees are unanimous in affirming that Alfa Telecom has really been improving the customer care treatment and there are various technological and behavioural initiatives to improve the company relationship with a customer. On the other hand, they argue about the company's gap in linking customer relationship with employees' individual objectives. Some of the interviewees claim that customer relationship is not a priority issue for the company, because they are concerned with improving sales and minimising cost (mainly in post-sales).

The reduction in land line customers resulting from the advent of mobile phones is a threat to Alfa Telecom. The company also perceives the information system architecture that resulted from legacy system as a threat. Customer data integration is also an issue that could be improved in the company.

Teece (2007) claims that a company's opportunities can be generated by endogenous and exogenous factors. The employee's creativity and cognitive ability could give rise to new opportunities in a company. It is important to highlight that some companies have been developing mechanisms to stimulate the learning capability of staff and the capability to develop and test new opportunities.

Alfa Telecom has a department to better observe and stimulate employees' capacity to propose new ideas related to customer relationship. This is a special small group inside CRM department whose aim is to know commercial departments' problems and to invite people interested in the issue who are able to offer a contribution to a brainstorm meeting. This group has a highly structured methodology in order to observe the opportunity closely, including the benefits and economic risk of the new project.

Research activity is considered very important by Teece (2007) because the group must include all environmental business elements. The author argues that involving customer in this meta-capability is important as they can better include the technology in their routines.

Considering all arguments, this meta-capability includes the following processes: (1) processes to direct internal research and development and select new technologies; (2) processes to tap developments in exogenous science and technology; (3) processes to tap supplier and complement innovation; and (4) processes to indentify target market segments, changing customer needs, and customer innovation.

According to the interviewees, related to this meta-capability, some customer relationship management processes must constantly be improved in the company: (1) selecting and using IT in order to improve and help staff to attend customers; (2) choosing the employees and partners, it is important to highlight that nowadays companies outsource part of customer services attendance in the call centre; (3) identifying customer segments in order to cater to specific needs and create mechanisms to observe the customer profile in each segment; (4) knowing customers over time; and (5) observing customer innovation in the market, in order to aggregate value to build a profitable relationship between both sides of the relationship.

After mapping, creating, recognising and absorbing the new opportunities, the framework indicates that a consolidation phase must take place.

7.3.2. To seize opportunities

In this phase we discussed the individual processes. It is important to highlight that all these processes are complementary.

To delineate customer solution and business model: This process refers to the design and performance of products, and business model employed in order to aggregate customer value (Teece, 2007). The person responsible for attending large enterprise customers describes that he has an Alfa Telecom team situated in the customer enterprise's office. They have established a very close relationship and in order to know the customer enterprise environment, the interviewee goes to sector business meetings. He highlights that it is important to observe the business with the customer's eyes and work as a consultant, proposing a specific solution to aggregate value in order to help the customer achieve its organisational objectives. Teece (2007) considers that selecting, adjusting and improving a business model is a complex organisational capability.

To define the company boundaries to manage the partners: This activity is responsible for defining which elements form part of and which do not form part of a company's environment. It is very important to know that the company partners can work together in order to maximise their resources and to observe the movements of the competitors. A manager of customer relationship management of Alfa Telecom makes the following metaphor in order to explain the competitive position of the company. He says that the company must be systematically attentive towards the market movements, with the customers and the competitors. According to him, "the managers need to think out of the company scope and pay attention to future needs of the market. It is important

to maintain a balance between being reactive and proactive. A company leader may not be the best or innovative in all activities, but may be able to innovate when the competitors launch a new product or service". The manager compares the competitive market with sailboat (regatta race): "The boat in front of the others (leader boat) does not change the direction, it waits for the other boats to take this risk. As long as nothing changes, this boat does not take any risks. Nevertheless, when a competitor changes direction, the company must be ready, with all organisational capabilities, to change a direction as well".

To define decision making protocols: We understand that the definition of decision making protocols related to customers is critical. In other words, the definitions of customer relationship rules are crucial so that all organisational employees are able to observe that top managers are concerned with customer relationship. Moreover it helps staff empowerment without losing the consistency in decision. In order to answer market issues, companies have been building a partner network. This network elaborates complex systems, and companies use part of the technological infrastructure of each company, in other words, they are technologically interdependent. When the network grows, the rules of decision making become more complex (Teece, 2007). In the case of Alfa Telecom we must consider the shops, the call centre companies, and all companies that offer services to Alfa Telecom.

Teece (2007) claims that an organisation learns from its mistakes. When investments are low and frequent, there are many learning opportunities, but when investments are heavy, the company must avoid mistakes. Some decision making processes implicate risk situations and undervalue rational principles. This kind of mistake is problematic mainly when it involves path dependence phenomenon. One of Alfa Telecom interviewees compares the company with an aircraft carrier. According to

him, “this ship needs 20 to 30 km to get going and 20 to 30 km to stop. Each kind of manoeuvre must be precise, without any abrupt movement. There are many people inside the ship”.

To build stakeholders’ loyalty and commitment: The administrators of the company must demonstrate leadership capability, and the effectiveness of communication. There are many factors such as values and culture characteristics that are not linked with economics and must be propagated to stakeholders. According to interviewees there is a commitment between Alfa Telecom and the Portuguese population and government, as it employs a large part of the population. Even though the company knows that it has more employees than is necessary, some interviewees highlight the social commitment of the company.

7.3.3. To maintain competitiveness

Competitiveness results from the organisational capability to renew and rearrange the resources that interfere with the customer relationship. People in the company arrange, protect and reconfigure tangible and intangible organisational resources. Organisational success is linked with technological opportunity and the identification of market opportunity, the business model, and the investments to obtain new critical resources. The success also leads a company through path dependency. According to Teece (2007) the reconfiguration is needed to maintain the evolution and, if necessary, to break unfavourable path dependence.

Teece (2007) argues that operational efficiency results from a success routine. All modifications in the routine have a cost. If the innovation is incremental, the routine will gradually change. Next we present some processes related to this meta-capability.

Achieving decentralisation: In order to respond well to customers and technological evolution, mainly during expansion, companies must achieve a high level of

decentralisation. Managers that control different information, in various contexts, and are responsible for different kinds of decision do not have to communicate in order to make a decision. Teece (2007) claims that the only problem is the risk related to the company's ability to continue integration.

Managing cospecialisation: The company strategy must be improved at all times. Co-specialisation can be of one asset to another, or of strategy to structure, or of strategy to process. It is important for both seizing and reconfiguration. Rapid environmental changes create a need for continuous or at least semi-continuous realignment (Teece, 2007). Managers looking for new combinations to align resources consider cospecialisation, in other words, resources for which it is possible to explore their complementarities.

Learning, knowledge management, and corporate governance: This activity is related to organisational learning capability, its transfer knowledge mechanism, integration of dispersed know-how and the intellectual property protection issue. When we asked the IS interviewed at Alfa Telecom what they have learnt from the CRM adoption project, he claimed that they have learnt to know how to commit mistakes and how to spend money on IT projects. He says that they spent a lot of money to see consultant Power Point slides and bought any idea related to CRM from consultants that sometimes had no idea of what they were talking about. He uses the expression "best of the state of the art" to explain their position on solving the CRM adoption problems. The manager also argues that they have learned the importance of coaching in which they must understand the project objectives and work with expert partners.

Corporate governance: Corporate governance is relevant because the intangible assets are critical to the success of the organisation. In this way, the new knowledge is crucial as well as the organisational learning mechanisms. Integrating outside

knowledge is also important when the company forms part of a network (Teece, 2007). The interviewees of Alfa Telecom highlight that in IS projects, the company has various partners to solve the technological question, to source technology and know-how.

Teece (2007) discusses different issues related to corporate governance and dynamic capability: (1) there is a continual necessity to alter the products, the business model, the company boundaries and the organisational structure; and (2) all initiatives that do not aggregate value to the organisational improvement must be rejected. The author argues for the substitution of top managers that fail to learn and reconfigure capabilities.

In relation to this issue, one of the administrators of the company affirms that “Alfa Telecom needs managers with enough energy to change the company situation, which are able to motivate people and be prepared to implement the new strategy (execution capability). They must also be strong enough to make difficult decisions”.

Companies working in a dynamic and competitive market must build their own protection schemes. These companies also change the competitive environment with innovations and business resource orchestration (Teece, 2007). Alfa Telecom has been dynamically showing its market position, and has also contributed to changing the competitive market structure. The spin off that took place in the Alfa Telecom holding is evidence of this. One of the interviewees affirms that “Alfa Telecom creates its main competitor”.

Nowadays, as Alfa Telecom feels the impact of its competitors (land line telecom, mobile and substitutes such as VoIP), the holding is planning a new strategy to converge landline and mobile companies. This new market position calls for a CRM project to be a priority.

People in the company are motivated to conduct a new CRM project. Moreover, the company administrators must give a financial return to shareholders in a short period of time. This situation maximises the expectations attached to the new CRM project.

At the moment, the company is starting a new cycle of dynamic capabilities. Path dependency is a factor that must be analysed because old mistakes and practices that do not aggregate value must not be repeated. The dynamic capability framework recognises that the past had influenced the company, but committing similar mistakes is not desirable, by any means. The managers must plan distinct ways and invest in the decisions. In the new Alfa Telecom CRM project new opportunities will appear. It will be important for the company to analyse these opportunities, create priorities and manage them the best way possible to orchestrate this initiative.

Alfa Telecom presented reasons to reorganise itself and the market in which it is inserted. The “convergence process” resulted from telecom market restructuring, competitors’ threats and new demands from final customers. Alfa Telecom is reorganising its resources so that they are based on technological resources. These technological resources are considered the main mechanism for moving other resources (such as organisational structure and human resources). The technological information architecture is considered a technological drive to achieve the strategic change in the company.

According to Sandberg and Targama (2007), top managers must alter their views on the business for a company to be able to implement a change in its core competence. This new understanding of company position must be shared among all employees in order to establish new practices.

A highly entrepreneurial management is needed to maintain dynamic capabilities in a company. Managers must sense the actual context and seize the opportunities. This

kind of management involves recognising problems and tendencies in order to give direction to resources and to draw organisational structure and systems. It is also important to use the technological opportunities to foster alignment with customers' needs. Offering a dynamic capability related to CRM will help a company consider all organisational changes involved in this initiative.

Therefore, we agree with Coltman (2007) who states that in order to build and develop CRM capabilities managers must orchestrate a combination of IT infrastructure, human skills and business structures. In Caldeira and Pedron (2007) we argue that the organisational capabilities emerge from the interaction of resources (customer data, software applications, IT infrastructure, and people) and competences. These elements must be orchestrated in the organisational processes in order to meet CRM business objectives.

7.4. Summary and Conclusions

In this chapter we present the development of two main contributions of this thesis. The first one refers to a net of CRM organisational competences. The second thesis contribution presented in this chapter refers to a CRM Dynamic Capability.

We agree with Coltman (2007) who states that in order to build and develop CRM capabilities managers must orchestrate a combination of IT infrastructure, human skills and business structures. These three elements are discussing in each meta-capability. Organisational competences and capabilities are the key to be analysed and discussed in a company in order to achieve the CRM objectives.

CHAPTER VIII

Research conclusions

8.1 Summary of the research undertaken

In order to maintain competitiveness, many traditional companies develop a customer-centred organisation. They need to develop the capabilities and competences to deal with the key resources, knowledge and tools that help them add value to the customers.

An important competence in a CRM approach is managing the perception and projection of value for the customer and the organisation. Payne (2006, p. 156) says that “Achieving the ideal equilibrium between giving value to customers and getting value from customers is a critical component of CRM”. According to the author, it is of paramount importance for companies to adopt an analytical approach. This will assist them through value creation, supported by a dynamic, detailed knowledge of customers, competitors, opportunities and the company’s own performance capabilities. These arguments highlight the importance of companies developing their organisational capabilities related to CRM strategy and justify the relevance of the present research.

This research is underpinned by issues related to CRM. They may be summarised thus: (1) there are three different CRM approaches (philosophy, strategy and technology); (2) these approaches illuminate different organisational goals related to CRM initiative; (3) it is necessary to observe a set of critical factors to attain these goals; (4) these critical factors are related to a set of resources and organisational competences; (5) the dynamic capabilities are considered a key role of strategic management in appropriate *adapting*, *integrating* and *reconfiguring* internal and external resources and competences. These capabilities (6) have a dynamic nature,

which can be gradually improved. The construct we rely on is based on integration among CRM's critical factors of success (Table 4), which has been proposed in the literature and Dynamic Capability concepts (Teece et al. 1997, Eisenhardt and Martin, 2000, Teece, 2007).

CRM adoption requires that managers and employees use technology in order to build and operate relationship marketing values. In most cases, they are concerned with technology issues, but in a few cases they try to find ways to discuss Relationship Marketing values with employees and identify the required competences.

CRM is based on the idea that instead of focusing on company product or service information, the company should become increasingly knowledge-intensive about their relationships with their stakeholders. Companies focused on customers create an even greater need for continuous development of the organisation's competences. When a company defines CRM in a broader view (technology, strategy and philosophy), as we have done in this research, Relationship Marketing values need to be included. These values must be included in the definition of a CRM strategy and guide IT choices. More important, employees must agree and be motivated to use these values to guide individual and collective actions. These values must also orchestrate the development of organisational competences and capabilities.

8.2 Key research findings

The first and second research question refers to (a) "Which organisational competences should be developed in a CRM initiative?" and (b) "How these CRM organisational competences relate to each other in a CRM initiative?". In order to answer these questions we used the Value Focused Thinking approach to understand what CRM competences should be developed in the organisation. In this study, we have

identified a set of competences that need to be developed in order to manage customer relationships effectively. The whole development of this research contribution is presented in Chapter VII.

Enterprises develop competences to deal with the key resources, knowledge and tools that help them add value to their business. In a CRM approach, managing the perception of value is a difficult task, for both the customer and the organisation (supplier). Providing value to customers is as important as getting value from customers, and enterprises that adopt a CRM strategy must develop analytical processes to understand the creation of value. Adding value in CRM processes involves detailed knowledge of customers, and the ability to identify opportunities to develop a strong relationship with customers.

We believe that because organisations which adopt a CRM strategy are in a competitive environment, a dynamic model needs to be used to analyse and explain how they can improve their CRM strategy in order to achieve success. In relation to this issue, we formulated a research question, as follows: Which dynamic capabilities should be developed in a CRM business approach?

We were concerned with observing the dynamic nature of those capabilities and the extent of their influence on the development of CRM initiative. We analysed the way companies draw up the configurational path of their organisational resources and competences inside their CRM initiatives. In relation to this research question we presented the theoretical approach of “CRM Dynamic Capability Framework” in Chapter VII. This was proposed as one of research contributions.

8.3 Contribution to knowledge

In relation to this research's contribution to the body of knowledge, we proposed a theory to analyse organisational competences and capabilities issues. The dynamic capability theoretical approach helped us to understand and analyse the way companies have been managing their resources in order to deal with CRM initiatives and how it can be improved.

Traditionally, the organisational strategic theories and models are focused on a company's external issues. The RBV proposes observation of internal factors of the organisation, and recently with the dynamic capability approach we can understand how a company reconfigures its resources and operational routines in order to respond to a changeable and dynamic environment. This theory supports the analysis related to customer relationship management.

The theoretical contribution of this thesis was to observe CRM as an organisational dynamic capability. Although we have used empirical evidence to show how it is possible to analyse a company's characteristics as elements of dynamic capabilities, it will never be exhaustive or complete. Teece (2007) refers to dynamic capabilities as those that have their own nature, are incomplete, incipient, with nebulous character, and very difficult to implement. This is because dynamic capabilities mean the mobilisation of organisational resources. This process is unique, and results from the company's path dependency.

The dynamic capability refers to sensing and shaping opportunities, managing threats, combining and recombining specialised company resources in order to respond to market changes, customer needs and the way a company delivers value to shareholders.

Beyond these findings, we analyse other relevant issues related to organisational capabilities that manage CRM initiative and may help practitioners be successful with their CRM projects.

Because a CRM project includes the whole company, the interviewees and the literature highlight that the challenges are related to the company structure, organisational processes, and enterprise culture. Behind each of these questions many past problems of the company are hidden. The technological architecture is also considered a challenge, mainly in traditional companies that have a long history of IT adoption. Traditionally, companies have the advantage of experiencing other IT projects (such as ERP adoption), and may have learnt from this experience. On the other hand, their informational architecture is generally complicated by many legacy systems. As the CRM system must use the organisational data and deal with other systems, the IT team finds other questions to solve due to the inheritance of old IT projects.

In relation to the CRM software, we were able to observe that, in general, the interviewees evaluate the recent CRM software packages well. The sector specialisation of CRM software is well evaluated because this project corresponds with organisational processes. Customising the CRM software is now an activity that should be avoided, according to IS people. They argue that customisations can weaken the software and make changing the software version hard.

Very interesting evidence was found regarding people from business sectors, revealing that they know more and more about technological issues and undertake a proactive role in the CRM project. This may be considered good by IT people, because business people are more aware of how IT can help their routine activities. On the other hand, the roles must be more clearly described in order to develop a serious and competent project.

The employees consider that sponsorship of the project is crucial to the success of the initiative. In general, people comment on the importance of sponsorship from the business sector. This can lead the employees that work in business sectors to be more committed and the CRM initiative is not viewed merely as a software implementation.

Customer centred companies inserted into a CRM philosophy concept require a positive attitude and a desire to extract value from the whole organisation by managing customer relationships over time. In order to truly manage customer relationship, the organisation has to develop its culture by motivating employees at all levels towards learning and helping them in the capture, selection use, and sharing of organisational resources that can aggregate value to a customer. An implication of this finding is that the adoption of modern processing technology, although essential for building a customer-oriented company, does not necessarily increase customer value according to his/her perception. A company can make many organisational efforts to adopt CRM technology, but without the right strategic guidelines or the right philosophic values as a base, customers will probably not appreciate the company initiative as expected.

Finally, it is important to highlight that the policy for evaluating and rewarding employees in a company that has adopted CRM is a crucial issue. The alignment of organisational mission, vision, technology, and goals is an important CRM adoption topic. Frequently, the organisational goals do not reflect departments' and employee's goals and metrics. In some companies, sales departments are concerned with selling activities, since they are evaluated and rewarded only according to sales metrics. In light of this fact, sales people usually think that maintaining "a close relationship with a customer" is not their responsibility. As a result, customers that complain or make suggestions do not receive a satisfactory amount of attention.

8.4 Limitations of the study and opportunities for further research

8.4.1 Limitations

Considering this document as the result of a long research process, we must analyse many problems and opportunities for improvement. This reflection helps us to learn from our own research project and also restricts the conclusions according to these limitations.

First of all, we believe that research topics related to CRM must be studied with a deep research strategy. We are working on a strategic issue in companies that are competing in turbulent and very dynamic markets. These companies have passed through problems with CRM projects and have witnessed many failures. The quality of our research results depended on research competence to explore the most important issues related to CRM adoption and also the availability and sincerity of the respondents.

We were unable to explore all the cases at the same detailed level. Furthermore it was not possible to obtain all the case studies that we would like to have included. As CRM is a strategic issue for companies, it was impossible to study two big players of the same market, which had been an objective at the beginning of the research project.

It is important to clarify that this phenomenological approach is related to an interpretative research paradigm. As such this study is not free of “biases”, in the sense that even the choice of the subject of study is conditioned by the previous personal experiences of the author, which includes a set of values and beliefs. This has to be considered as a limitation.

Another question refers to the very dynamic context of a company. In the case of Alfa Telecom, the organisational context related to CRM initiative changed

considerably during data collection. It was relevant to observe dynamic capabilities necessities, but on the other hand accompanying all organisational changes was a challenge.

It is important to state that statistical generalisation is not an objective of interpretative research. We aim to offer a deeper understanding about organisational competences and dynamic capabilities of CRM adoption, which can be observed as a comparison for various contexts. Our research results must be read in order to give new insights to the research topic.

8.4.2 Further research

The qualitative and exploratory nature of this research is very appropriate with regard to offering new insights for further research topics. The research process gave us some ideas about what aspects warrant deeper investigation in the CRM adoption issue. In future research, an important issue is how dynamic capabilities contribute to mobilising an individual competence to reach an organisational level, in other words, how to transform an individual competence into an organisational competence.

It would also be interesting to explore to what degree managing relationships with customers is actually possible. The research supposition in this case would be that relationships have to be cultivated instead of managed. Such an approach is inspired by the concept of cultivation proposed by Ciborra (2002). Its purpose is to explore empirically the idea that a relationship between a company and its customers is a process that cannot be totally controlled; rather it is a natural process demanding support, monitoring, protection and care.

We also observe the necessity of in-depth exploration of the relation between the employees and the success of the CRM initiative. Employee resistance to CRM software is a result of the elements discussed above. The training programs that are

offered to employees are generally in connection with technological issues rather than behavioural aspects related to a CRM philosophy. The technological CRM focus overlaps with the attention paid to customers. We observe that new individual competences are required of employees, and companies do not provide the structure for their employees to develop these competences properly.

A very crucial topic is related to call centre and other outsourcing services. Outsourcing is perceived as a solution for managing activities that are not considered core in a company. Following this rationale, call centres and shops are, in many cases, the responsibility of a company's partner. Outsourcing this type of process requires the standardisation of procedures and a close relationship between the partners. Call centre employees must work with similar company values and goals, since for the customers, they are the company's voice. In practice, this is rarely the case. Call Centres are organised on an economic basis and their strategic value is frequently forgotten. How can call centre and other outsourcing services be conciliated with a well developed CRM initiative?

Another idea refers to the new technologies that have been developed, such as blogs, social networking, and RSS (Really Simple Syndication). The Web 2.0 provides opportunities for the emergence of new business approaches related to CRM concepts. Some software houses are calling this new CRM approach "social CRM". We must recognise that Web 2.0 allows customers to be more proactive on the Internet. This highly assertive contact channel gives the users a chance to influence other customers' opinions and decisions about services and products, and, in this way it can exert much more influence on the company's strategies. It is important to explore the way companies reorganise their resources and competences in order to meet this new market demand.

APPENDICES

Appendix A - Case Study Structure - Check list for interview

Identification's questions

1. Role of the interviewee (functions)
2. Academic background
3. Experiences in the company
4. Years in the company
5. What is CRM?

I) CRM as a technology

a) System adoption questions

1. How did the CRM idea appear in the company? Who thought of the CRM adoption idea? Why was CRM adopted in the company? Who was involved in the decision to adopt CRM (inside and outside the company)?
2. How did the marketing department participate in the CRM software adoption and implementation?
3. How was the CRM software chosen?
4. Which process was involved in the adoption/aquisition of the existing CRM components (developed especially for the company, a package software bought at the market, contract with a consultant) and why?
5. How was the analysis of the CRM system prerequisites conducted? Who participated in this process?
6. Which external experts were involved in CRM adoption? (IS/IT, CRM and Relationship Marketing consultant)
7. Which service level is offered to the company by the software house? Why?
8. Which service level do the consultants offer to the company? Why?
9. Does the company have several CRM suppliers or has it established a specific relationship with one supplier only?
10. Who was involved in the CRM software adoption?
11. Which models, techniques or frameworks were used for the CRM implementation?

b) Technological structure composition

1. What is the existing IT infrastructure?
2. Which IT was used in CRM? (Hardware, Datamining, Data Warehouse, Call Centre, Web site, etc.).
3. Who are the suppliers of the IT infrastructure on which the IT solution is built (net, database, server, client stations etc)?

c) Information system integration

1. Are the information systems of the company, dealing with customer data, integrated?
2. How is the company database structured (the one that stores customer data)?

3. What other software packages exist in the company (ERP, EDI, etc.)?
4. Which of these systems are integrated into CRM?
5. Are there any problems at the level of data integration? Why? What should be done?
6. Are there any problems with data quality? Why? What should be done?

d) Flexibility of software

1. Does the CRM solution chosen allow for some flexibility?
2. Has the CRM strategy been influenced by the CRM products available on the market?
3. What is the potential quality of CRM products available in the market?
4. How does one evaluate the CRM software adoption in one's company? How is this software perceived in the market?

e) IT investment

1. What is the investment plan for CRM and IT supporting tools (all at the same time, is there a plan at all, is there only one budget, ...)?
2. Did CRM investment costs have any restrictions?
3. How does the company plan and evaluate IS/IT investments?

f) Training program

1. What kind of training was conducted in the company in relation to CRM initiative?
2. Who was involved?
3. Who provided the training?
4. How was the training conducted?
5. Have there been any periodical CRM training sessions conducted?
6. When is a new training course offered to the employees? Who takes part? Is participation mandatory? Is it offered during working hours?

g) Employees' CRM facilities

1. Do the employees, mainly the ones who work directly with customers, have the necessary information to improve customer relationship? How do they perceive their situation?
2. How have the collected customer data been used (analytic CRM)? What are the results?

II) CRM as a strategy

a) Coherence in the organisational lines of direction

a1) Alignment among company's mission, vision, goals and technology

1. What is the company's mission?
2. What is the vision of the company?
3. What are the company's objectives?
4. How do you classify the company's CRM expertise?
5. Have there been any changes in the organisational structure related to CRM?

a2) Redesigning of business processes

1. Was there any effort made to analyse and redesign the processes before the adoption of CRM solution?
2. Were there any changes in the processes? Which?
3. Who was involved in these activities?

a3) Aligning business processes

1. How does one evaluate the design of the company's processes (well designed/integrated/aligned/good information flow/etc.)

a4) Changing Culture

1. What are the mechanisms (training, games, etc) used to help in changing organisational culture?
2. How do employees accept the new CRM system? Is there any resistance to change? Why?
3. Did the introduction of CRM create internal conflicts? What were the reasons (power changes, fear of job loss, lack of IS/IT knowledge, distrust about the increase of internal control)

a5) Integrated sectors approach

1. How do the different company sectors develop projects together?
2. Are there rivalries among departments?
3. Does top management create mechanisms to link different organisational teams?

b) Strong leadership

b1) Top management commitment

1. How did top management welcome the CRM idea? Did they believe that it was an important initiative? Why?
2. What kind of participation top management has in the CRM initiative?
3. How do employees interpret the participation of top management in the CRM adoption Project?

b2) Effective leadership

1. What kind of actions are conducted by company's managers to make the CRM initiative effective?
2. How many CRM experts does the company have?
3. What is the relationship between the IS/IT manager and top management? How much time do they spend discussing CRM issues?
4. Do the managers feel comfortable using CRM IT tools and discussing CRM issues?
5. What is the proximity between the staff in charge of IT and marketing related to CRM initiative?

c) New requirements for employee groups

c1) Systemising customer data

1. Who are the employees that use CRM software?
2. In which business activity is the CRM software used?
3. Do the employees really register all the data on customer relationship in the database?
4. What kind of resistance related to registering customer data can be perceived?
5. Do the employees understand that the task of registering data about relationships with customers adds value to their job?
6. Are there any metrics to evaluate and reward the use of CRM?

c2) Empowerment

1. Did have the employees who work directly with customers receive any kind of empowerment?

c3) Learning each day

1. What kinds of contribution (new learning) did the employees provide to improve processes and ways to construct relationships with customers?
2. What are the communication channels or meeting points available where employees can share experiences (positive and negative) about relationship development and the use of IT tools?

c4) Integrated view of customer

1. How many different communication channels can a company provide for a customer?
2. Which company sectors develop activities that directly influence the relationship with

customers?

3. What is the percentage of customers that the company knows intimately through CRM?

c5) Proactive Sales

1. To which point do the Relationship Management values help the employees become proactive in their daily activities to improve the relationship with customers?

c6) Role-awareness

1. Do the employees know the objectives that they must reach?

2. Do the employees understand that their role affects other business processes and company's objectives?

c7) Internal communication

1. Did the company establish communication mechanisms among different sectors in order to facilitate the exchange of customer information and the company's relationship with the customers? Which ones?

2. Is there a company policy that rewards the information sharing inside the company?

d) Customer life-cycles

d1) Communication

1. What effect does a customer's complaint have inside the company?

2. Does the company have any outside partners which represent them directly at the customer? How does this kind of relationship work? Is the customer information stored and registered in the same way?

d2) Revision of the customer relationship cycles

1. Which customer life events are stored in the database?

d3) Customer segmentation

1. How is customer segmentation done in the company?

2. Which segment does the company want to maintain a relationship with?

3. What kind of action is planned for each segment?

4. How does a client change segments? How does the company evaluate the change in his/her profile?

5. How are the errors or inappropriate actions in a specific segment or with an individual customer identified? What is being done in relation to the detection of an error committed by the company?

d4) Efficiency and efficacy of technology investments

1. How is the customer information selected for each employee?

2. What kind of information obtained through data analysis is available for managers or employees (*cross-selling, profitability, etc*)?

3. If an employee identifies information necessity how is the flow until this information becomes available?

d5) Strategic view of technology

1. Does the IT department present solution to solve organisational problems and opportunities?

2. How does one classify the company's expertise?

3. Does the IS/IT manager know the business and actively participate to establish a relation between IT and business necessity?

d6) Measurement of CRM strategy

1. What kinds of measures are established to control their CRM initiatives?

2. What are the expected benefits from CRM? Were these benefits previously analysed?

3. How does one classify the CRM development in the company?

III) CRM as a philosophy

a) Mutual knowledge

1. What kind of initiative is conducted in order to involve the customer in the relationship with a company?
2. What does the company know about its customers?
3. When is the customer information collected?

b) Symmetry

1. What makes the customer be committed to the company?
2. What kind of customer action is valorised in the company (sales, complaints, regarding the improvement of the product processes, new product and service ideas, etc.)?

c) Long term orientation

1. Is the company willing to waive short-term profits in order to maintain a relationship that could bring long-term profits?
2. Does the company consider the CLTV?

d) Communication

1. How does the company communicate its new products and services to a customer?

e) Mutual benefits and satisfaction

1. What are the company benefits from maintaining a close relationship with customers?
2. What are the customer's benefits from developing a close relationship with a company?
3. How does the company evaluate the customer's satisfaction?
4. How does the company evaluate the return on their efforts to develop a customer relationship?

f) Mutual trust and fairness

1. Do the customers show an interest in solving conflicts with a company?

g) Mutual learning

1. What does the company learn from the customer? How do the employees systematise the information learned with customer?
2. How do they share customer knowledge within company's departments?

h) Mutual commitment and efforts

1. Does the company invest in a client that has not responded in a desired way (ROI, ROR, etc.)?
2. Does the customer usually insist on a relationship with the company (highlighting the company's shortcomings, or does he/she go to the competitors)?

i) Uniqueness

1. What kind of action is taken to try to individualise the customer relationship?

j) Freedom

1. Are there mandatory mechanisms that force the customer to remain in the relationship with the company (strong exit barriers)?

Appendix B – NVivo

The screenshot shows the NVivo interface with the 'Sources' pane on the left and the 'All Sources' table in the main window. The search criteria are 'Look for: [empty] Search In: Memos'. The table lists various sources with their names, folders, creation and modification dates.

Name	In Folder	Created	Modified
Ent_Carlos	Documents\Alfa_Telecom	13-01-2006 12:03	21-02-2006 19:47
Ent_Diario_	Documents\Alfa_Telecom	13-01-2006 12:03	13-01-2006 12:18
Ent_Diogo_	Documents\Alfa_Telecom	13-01-2006 12:03	13-01-2006 12:18
Ent_Joao_	Documents\Alfa_Telecom	13-01-2006 12:03	13-01-2006 12:18
Ent_JoãoC	Documents\Alfa_Telecom	13-01-2006 12:03	13-01-2006 12:18
Ent_Miguel	Documents\Alfa_Telecom	13-01-2006 12:03	13-01-2006 12:18
Ent_Paulo_	Documents\Alfa_Telecom	13-01-2006 12:03	13-01-2006 12:18
Ent_Paulo_	Documents\Alfa_Telecom	13-01-2006 12:03	13-01-2006 12:19
Ent_Paulo_	Documents\Alfa_Telecom	13-01-2006 12:03	13-01-2006 12:19
Ent_Resum	Documents\Alfa_Telecom	13-01-2006 12:03	13-01-2006 12:19
Ent_Rui_Lo	Documents\Alfa_Telecom	13-01-2006 12:03	13-01-2006 12:19
Ent_Vanda	Documents\Alfa_Telecom	13-01-2006 12:03	13-01-2006 12:19
Ent_Jose_	Documents\Beta_Energy	13-01-2006 12:04	13-01-2006 12:25
Ent_Manue	Documents\Beta_Energy	13-01-2006 12:05	13-01-2006 12:24
Ent_João_	Documents\Beta_Energy	13-01-2006 12:05	13-01-2006 12:25
Ent_Jorge_	Documents\Delta_Telecom	13-01-2006 12:05	13-01-2006 12:24

The screenshot shows the NVivo interface with the search criteria set to 'Look for: [empty] Search In: Alfa_Telecom'. The 'Alfa_Telecom' table is displayed, showing sources 'Ent_Diogo' and 'Ent_Ana'. Below the table, the 'Ent_Diogo' source is selected, showing a text snippet and a coding density chart.

Name	Nodes	References	Created	Modified
Ent_Diogo	20	92	13-01-2006 12:03	25-05-2009 12:26
Ent_Ana	20	45	13-01-2006 12:03	13-01-2006 12:17

Ent_Diogo

de milhões e milhões de clientes, porque ninguém ter
Então é um facilitador, é crítico, mas é um facilitado
informação a frente.

Em aspectos políticos... ah sim, é uma guerra que
você conseguiu implementar esta lógica na empre
empresa tem memória curta, você tem a administ
muda de X em X anos. Tem a lógica toda a mudar,
Basicamente o que acontece é que se **você coloca co**
de informação uma pessoa que é totalmente orient
ele vai olhar verticalmente determinadas funções e

Coding Density

- Alfa Telecom_Diogo
- Benefícios do CRM
- Competências Call Center
- Conceito de CRM
- Motivação Call Center
- Objetivo CRM
- Canais de comunicação interna
- Cultura
- Estrutura Organizacional
- Missão, Visão, Objetivos
- Aprendizagem
- Ecosistema
- Eros
- Estrutura

Appendix C – CRM: Values, Objectives and Competences

Values in Common Form	Objectives	Cluster of Objectives	Competence
<p>We wish we could use business analytics to know our customers</p> <p>We wish we could analyse our existing product range</p> <p>We wish we could think about new product lines</p> <p>We wish we could analyse our customer demographic information better</p>	<p>Maximise use of business analytics for CRM</p> <p>Create a product mix per analytic reports</p> <p>Define abilities to ensure customer fidelity</p>	<p>Maximise data richness for CRM</p>	<p>Develop a customer oriented organisational culture.</p> <p>Communicate effectively with customers.</p> <p>Improve interdepartmental and interorganisational cooperation.</p> <p>Align CRM with business strategy.</p> <p>Redefine organisational processes.</p> <p>Perceive customer needs and expectations.</p> <p>Communicate effectively with customers.</p> <p>Define customer data model.</p> <p>Identify and manage IT for CRM.</p> <p>Define techniques and procedures for CRM implementation.</p>
<p>I wish I had sufficient customer information so that I could make marketing campaign decisions</p> <p>I wish I had sufficient customer information so that I could make marketing strategy</p> <p>I wish I could segment customers</p> <p>I wish I could decide on product mix</p> <p>I wish I could fine tune selling</p> <p>I wish I had enough information to identify distribution channels</p>	<p>Ensure data exists to fine tune marketing campaign</p>		
<p>We wish we had a well defined data model</p> <p>We wish we could define critical data items for customer relationships</p> <p>We need to segment data as per demographics</p> <p>We need to understand the buying behavior of customers</p>	<p>Ensure a well-defined data model exists</p>		

Continue.

Values in Common Form	Objectives	Cluster of Objectives	Competence
<p>I wish I could monitor customer history I wish I knew about customer complaints I wish I knew what the customer would consume I wish I knew what the customer preferences would be I wish I did not have to repeat my information when calling a call center I wish the system was integrated to generate an individual profile</p>	<p>Maximise ability to monitor customer activities.</p>	<p>Maximise customer activity tracking</p>	<p>Develop a customer oriented organisational culture. Communicate effectively with customers. Improve interdepartmental and interorganisational cooperation. Align CRM with business strategy. Redefine organisational processes. Perceive customer needs and expectations. Communicate effectively with customers. Define customer value. Identify and manage IT for CRM. Define techniques and procedures for CRM implementation.</p>
<p>We wish we were able to segment the customers We wish we could get more information on the customers We wish we knew who our customers were I wish we could undertake customer differentiation I wish I could attend high value customers in a different manner I wish I could link customer behavior with the kind of customer service</p>	<p>Maximise ability to track customers at various points in a business processes</p>		
<p>We wish we were able to segment the customers We wish we could get more information on the customers</p>	<p>Maximise information on customers</p>		
<p>I wish our CRM systems were able to communicate with other firms</p>	<p>Maximise customer differentiation and segmentation</p>		
	<p>Ensure CRM system supports organisational communication</p>		

Continue.

Values in Common Form	Objectives	Cluster of Objectives	Competence
I wish could provide real time answers to the customers If I paid a bill (mobile phone), I would like to provide instant update If I paid a bill (mobile phone), I would like to provide instant credit If I paid a bill (mobile phone), I would like to provide instant information	Ensure responsiveness to customer needs Ensure timely response to customers Ensure complete information on customers	Maximise responsiveness	Develop a customer oriented organisational culture. Communicate effectively with customers. Improve interdepartmental and interorganisational cooperation. Align CRM with business strategy. Perceive customer needs and expectations. Communicate effectively with customers. Define products and services according to customer expectation. Identify and manage IT for CRM. Define techniques and procedures for CRM implementation.
We need to stay ahead of the game with respect to technology	Maximise use of latest CRM technologies		
We need to be able to change dynamically given the market conditions.	Develop dynamic capabilities for CRM		
We wish we could all have a single location for a database We wish all the data was located in one place	Ensure there is complete data on customers		
I wish we had a large database of our customers for analysis I wish we could mine the data for cross selling	Ensure ability to analyse data Maximise data for cross-selling	Maximise data consolidation	Develop a customer oriented organisational culture. Segment customers. Redefine organisational processes. Perceive customer needs and expectations. Communicate effectively with customers. Define customer data model. Identify and manage IT for CRM. Define techniques and procedures

Continue.

Values in Common Form	Objectives	Cluster of Objectives	Competence
			for CRM implementation.
We wish we had a unique IT/IS platform We wish we were able to work with different systems at the same time We wish our systems were integrated We wish our customer facing processes were integrated	Maximise CRM system integration Ensure integration of customer facing business processes	Maximise integration of CRM systems	Identify and manage IT for CRM. Improve interdepartmental and interorganisational cooperation. Align CRM with business strategy. Redefine organisational processes. Define customer data model. Identify and manage IT for CRM.
We want just one CRM system to support sales We want integrated sales and CRM systems We want to ensure information availability for CRM and sales	Ensure integration of systems in sales and customer relationships		
I wish our CRM systems were integrated with other firms	Provide an integrated CRM system across trading partners		
I wish we had the capability to integrate systems during mergers and acquisitions	Ensure capability to integrate CRM Systems during mergers and acquisitions		
I wish my IT people were just concerned with implementing the solution I wish only my managers strategise I wish we had fewer leaders I wish strategy and implementation roles were clarified.	Define clarity in roles Ensure differentiation in nature of work for IT and Business Define an accountability structure		

Continue.

Values in Common Form	Objectives	Cluster of Objectives	Competence
I wish we were able to establish good communication between different roles I wish I was able to allocate strategy and implementation responsibilities	Ensure differentiation of operational and strategy roles		interorganisational cooperation. Align CRM with business strategy.
We wish we had high quality data We wish we were able to maintain good data quality standards We wish we had a process for ensuring good data quality We wish our systems ensured good data quality We wish our customer data was up-to-date We wish our customer data was current	Ensure adherence to data quality standards Ensure integrity of data Maximise currency of data	Maximise data quality	Get top management support for CRM. Communicate effectively with customers. Improve interdepartmental and interorganisational cooperation. Redefine organisational processes. Define customer data model. Identify and manage IT for CRM. Define techniques and procedures for CRM implementation.
We would like to have a better integration of business and IT for CRM applications We want to ensure business buy-in for CRM applications We want to ensure that IT understands the business requirements for customer relationships We would like to 'create' hybrid manager capable of managing interdisciplinary requirements We want to ensure that our managers are cross functionally capable	Develop hybrid managers capable of managing interdisciplinary requirements Ensure engagement of Business and IT in CRM strategic planning	Maximise alignment of CRM systems with business processes	Get top management support for CRM. Develop a customer oriented organisational culture. Align CRM with business strategy. Redefine organisational processes. Identify and manage IT for CRM.

Continue.

Values in Common Form	Objectives	Cluster of Objectives	Competence
<p>I wish I had a cross functional committee for CRM related decisions</p> <p>I wish managers from other departments were involved with CRM decisions</p> <p>I wish we defined structures for CRM related decisions</p>	<p>Ensure engagement of top management in CRM project</p>		
<p>We would like to adapt the organisational processes to the software</p> <p>We would not like to over customise the software to fit organisational needs</p> <p>We would like our corporate culture to recognise standard customer facing business processes</p> <p>We want to ensure a stable corporate culture for CRM success</p>	<p>Maximise fit between CRM software and business activities</p> <p>Ensure ability to review business processes vis a vis CRM Systems and vice a versa</p> <p>Ensure ability to review CRM systems</p>		
<p>We need CRM systems to create a new reality</p> <p>We do not want CRM systems to simply enable existing processes</p> <p>We want our CRM systems to ensure competitive advantage</p> <p>We want to be sure that we are the leaders in customer facing activities</p> <p>We do not want to be a laggard</p>	<p>Ensure that CRM Systems drive competitive strategy</p> <p>Ensure CRM Systems define innovative business orientation</p>	<p>Maximise innovation</p>	<p>Get top management support for CRM.</p> <p>Develop a customer oriented organisational culture.</p> <p>Communicate effectively with customers.</p> <p>Improve interdepartmental and interorganisational cooperation.</p> <p>Align CRM with business strategy.</p> <p>Redefine organisational processes.</p>
<p>We need to be aware of our competitors CRM systems</p> <p>We need to know what are competitors are doing</p> <p>We need to know how are competitors are collecting</p>	<p>Maximise understanding of competitor use of latest technologies</p>		

Continue.

Values in Common Form	Objectives	Cluster of Objectives	Competence
and managing information	Maximise understanding of competitor analysis		Perceive customer needs and expectations.
We wish we could inculcate efficiency into the organisation We wish the CRM could ensure efficient business processes	Maximise efficiency of business processes		Define products and services according to customer expectation. Identify and manage IT for CRM. Define techniques and procedures for CRM implementation.
We want our business divisions to participate in company CRM initiatives We want our users to be involved in various CRM related activities We want our managers to be on board with our CRM related activities. We want all stakeholders to buy into our CRM concept We want all stakeholders to have input into the CRM system	Maximise customer participation in CRM Ensure business division participation in CRM Maximise user involvement in CRM	Maximise stakeholder buy-in	Get top management support for CRM. Develop a customer oriented organisational culture. Align CRM with business strategy. Define techniques and procedures for CRM implementation.
We want detailed requirements for designing CRM systems We want to ensure that all CRM related requirements are documented We want to be sure that end user requirements for CRM systems have been captured We want to ensure that sufficient time is allocated for CRM requirements assessment	Ensure proper requirement assessment for CRM systems Ensure there is complete documentation for CRM Systems Ensure availability of time for CRM System design	Maximise requirement assessment for CRM	Get top management support for CRM. Develop a customer oriented organisational culture. Improve interdepartmental and interorganisational cooperation. Identify and manage IT for CRM.

Continue.

Values in Common Form	Objectives	Cluster of Objectives	Competence
	Define user requirements for CRM Systems		
<p>We need to define the roles and responsibilities of different departments</p> <p>We need to define the expectations of various departments</p> <p>We need to ensure that we get call center input</p> <p>We need to ensure that we are able to get the marketing input</p>	Encourage input from various customer relationship divisions		
<p>We would like our CRM project to be professionally managed</p> <p>We would like to define time allocations for the CRM project</p> <p>We would like to define the budget requirements for our CRM projects</p> <p>We would like to establish milestones for our CRM projects</p> <p>We would like to ensure that there is good communication in managing CRM projects</p> <p>We would like to ensure that all stakeholders are aware and in agreement of the CRM initiatives</p>	Ensure communication among stakeholders	Maximise professionalism in CRM management	<p>Get top management support for CRM.</p> <p>Improve interdepartmental and interorganisational cooperation.</p> <p>Align CRM with business strategy.</p> <p>Identify and manage IT for CRM.</p>

Continue.

Values in Common Form	Objectives	Cluster of Objectives	Competence
CRM related decisions are not just supposed to be technical decisions. We want to make sure that our CRM projects are not skewed in any direction We want to be sure that all stakeholders work for the success of the CRM project	Ensure balance between technicality and business requirements		
We need to establish structures of responsibility We need to ensure that each person know what their role was We need establish formal organisational structures I wish my IT people were a little more responsible with the budget I wish we were able to harness the flamboyant behavior of our IT people.	Harness the flamboyant behavior of IT		
I wish we did not have any territoriality control over the CRM system I wish everybody valued the CRM system equally I wish there was a common vision between business and IT I wish we had a common CRM culture	Minimise territoriality for CRM applications		
We need to ensure that our organisation has a unified view of CRM	Present a unified view of the organisation to the customers		
We want the CRM system to be user friendly We want our CRM systems to be easy to use	Make sure user interfaces are friendly	Maximise ease of use	Define customer data model. Identify and manage IT for CRM.

Continue.

Values in Common Form	Objectives	Cluster of Objectives	Competence
<p>We want to ensure that our sales force find it easy to use.</p> <p>We want a system that does not require too much of learning</p> <p>We want different shifts to transition smoothly from one to the other</p>	<p>Make sure that system does not require a lot of time to learn</p>		
<p>I wish our customers participated in our activities</p> <p>I wish our customers had control of the data</p> <p>I wish our customers were able to proactively engage in various company activities</p>	<p>Provide customers control of their data</p>		
<p>We want senior management to provide leadership for CRM initiatives</p> <p>We want established managers to coach end users on CRM activities</p> <p>We want to develop a learning environment in the organisation</p> <p>We want our managers and leaders to sponsor CRM related change initiatives</p> <p>We want coaching in ensuring smooth transitions related to CRM systems</p>	<p>Maximise coaching of managers for CRM activities</p>	Define CRM leadership	<p>Get top management support for CRM.</p> <p>Develop a customer oriented organisational culture.</p> <p>Align CRM with business strategy.</p>
	<p>Develop abilities for smooth transitions with respect to CRM systems</p>		
	<p>Ensure a learning environment</p>		
<p>We want our corporate board to recognise that CRM ROI depends on their involvement and time</p> <p>The board needs to recognise the CRM projects are long term projects</p> <p>All senior stakeholders need to recognise that it takes time to realise benefits from CRM projects</p>	<p>Ensure ROI for CRM System projects</p>		

Continue.

Values in Common Form	Objectives	Cluster of Objectives	Competence
We would like to have consultants who have content expertise We want our consultants to have experience in CRM related activities We want to ensure that our consultants have the requisite qualifications	Ensure CRM consultant expertise Maximise knowledge in using CRM consultants	Define benefits realisation of CRM	Get top management support for CRM. Develop a customer oriented organisational culture.
We want our top managers to allocate sufficient time to ensure return on investment	Maximise benefits realisation for CRM projects		
We need to be able to incorporate CRM related changes quickly	Encourage good change management (structure, strategy, processes) for CRM		
I wish my senior management participated in CRM implementation to reduce resistance to change I wish we manage resistance to change with respect to CRM better	Minimise resistance to change in CRM System implementation		
We need to establish the strategic importance of CRM	Ensure resource allocation (people and materials) for CRM success		
I wish we had success matrices for CRM success I wish we had matrices to help improve value of CRM Systems	Enable performance evaluation for CRM Systems		
I wish our company adopted the CRM systems quickly I wish CRM systems were quickly institutionalised in	Ensure quick institutionalisation of		

Continue.

Values in Common Form	Objectives	Cluster of Objectives	Competence
our organisation	CRM systems in organisations		
We need to ensure that the scope of the CRM project is well understood We need to ensure that the budget of the CRM project is understood We need to ensure that the skills for the CRM project are well understood We need to define as to which departments must be involved in the CRM project We need to define the project lead for the CRM system implementation	Ensure stakeholder intent for CRM Systems is captured Maximise budget allocations for CRM Define milestones for CRM activities Ensure good project management (time, scope, cost) for CRM projects	Ensure CRM Project Management	Get top management support for CRM. Align CRM with business strategy. Identify and manage IT for CRM.
We need to ensure that our user are empowered We need to make sure that our users are able to take decisions on their own W need to make sure that our users are able to get pertinent information from the system We need to make sure that our CRM system ensures decision making	Ensure that users can take decisions on customer Ensure that CRM systems enable user decision-making Ensure the users can get pertinent client information	Maximise user empowerment	Get top management support for CRM. Develop a customer oriented organisational culture. Improve interdepartmental and interorganisational cooperation. Align CRM with business strategy.
We need to develop multi disciplinary skills We need to ensure that dedicated individuals would on CRM projects	Ensure development of multidisciplinary teams and competence	Maximise CRM orientation of users	Get top management support for CRM. Develop a customer oriented organisational culture.

Continue.

Values in Common Form	Objectives	Cluster of Objectives	Competence
I wish we could drill down into customer information quickly I wish we could have an ability to “up sell” I wish we could figure out customer loyalty I wish we could see if the customer may have interest in other products or services	Ensure data interpretation for “up selling”		Align CRM with business strategy Identify and manage IT for CRM.
I wish our employees have the maturity to take advantage of CRM functionality I wish our divisions have the competence to exploit CRM systems	Ensure employees have the maturity to take advantage of CRM functionality		
We need to ensure that our internal processes are working We need to ensure that our customer requirements are being fulfilled We need to ensure that our customer service processes are transparent to our customers	Ensure transparency of customer service processes	Maximise efficacy of customer relationship processes	Develop a customer oriented organisational culture. Communicate effectively with customers. Align CRM with business strategy. Redefine organisational processes. Perceive customer needs and expectations. Communicate effectively with customers. Identify and manage IT for CRM.
	Ensure customer service processes are not broken		
We need to ensure that our front office employees are well trained on CRM	Ensure training of employees in customer relationship management		
I wish employee workflow was completely automated	Maximise workflow automation		
I wish I could share risks with CRM consulting company I wish I could share risks with consulting company regarding CRM implementation	Ensure risks are shared among companies and CRM consultants (providers)	Minimise CRM project risks	Get top management support for CRM. Identify and manage IT for CRM.

Continue.

Values in Common Form	Objectives	Cluster of Objectives	Competence
I wish I could define the CRM consulting contract more clearly I wish I could mitigate risks because of CRM implementation	Define risk mitigation strategies for CRM implementation		
We need to reduce complexity in CRM implementation We need to ensure that CRM does not make a business process more complex We need to ensure that CRM is a business enabler	Minimise unnecessary complexity in CRM System implementation		
I wish we could choose the CRM system based on its capability I wish we do not get influenced with the fashion and fad I wish we do not get sold on features that we do not need	Make sure that the CRM system has desired capability Minimise fashion and fad relative to system capability Maximise relevance of CRM System features	Ensure good CRM System procurement	Get top management support for CRM. Identify and manage IT for CRM.
We need to have a methodology for CRM system procurement We need to respect the various stages in CRM system procurement We need to respect various stages in CRM system implementation	Define a methodology for CRM system implementation		

Continue.

Values in Common Form	Objectives	Cluster of Objectives	Competence
I wish we could trust our consultant partners in CRM implementation I wish CRM consultants are ethical in use of their time I wish we could control the time used by CRM consultants	Maximise trust in consultant-enterprise relationship Ensure control of consultant work		
I wish we had a technology enabled customer relationship orientation I wish we had a marketing oriented technical competence for customer relationships	Ensure a technology enabled customer relationship orientation Ensure a marketing oriented technical competence for customer relationships	Develop an organisation wide CRM culture	Get top management support for CRM. Develop a customer oriented organisational culture. Improve interdepartmental and interorganisational cooperation. Align CRM with business strategy. Perceive customer needs and expectations. Communicate effectively with customers.
I wish our customer viewed us in terms of integrated business processes We wish we did not have silos in the organisation We wish we had customer facing business processes	Ensure a unified view of the company		
I wish all our divisions and companies operated synergistically I wish our groups of companies shared their CRM vision with each other I wish our CRM activities were integrated across our sister concerns.	Ensure sister companies have a shared CRM vision		

Appendix D - The relation among competences

We followed Keeney (1994) in order to build the network of CRM competences.

“Why is it important?” was the question that guided us. The table below shows the relations:

Competence	“Why is it important?”	Description
Ability to get top management support for CRM	to develop a customer-oriented organisational culture	Top management support is crucial for all employees to realise the importance of the CRM project and adopt CRM values in their routine (it gradually supports the creation of customer culture).
	to align CRM with organisation strategy	Top managers can define the organisational lines oriented to CRM that will guide the whole company strategy.
Ability to develop a customer-oriented organisational culture	to improve inter-departmental and interorganisational cooperation	CRM strategy is related to an established relationship with all kinds of stakeholders. If a company develops culture focused on a customer, this will improve the relationship among internal departments and the relationship with enterprise partners.
	to communicate effectively with customer	The communication with a customer will be improved if all the employees know the importance of the establishment of a relationship with a customer.
Ability to improve inter-departmental and interorganisational cooperation	to communicate effectively with customer	Cooperation among departments and partnership is crucial to show the customer that the company develops CRM values internally.
Ability to align CRM with organisation strategy	to redefine organisational processes	The organisational processes will be defined in accordance with a customer relationship strategy.
Ability to redefine organisational processes	to communicate effectively with customer	In order to improve communication with a customer, it is important to analyse all organisational processes and minimise the gaps that can harm customer satisfaction.

Continue.

Competence	“Why is it important?”	Description
Ability to identify and manage IT for CRM	to improve techniques and procedures for CRM implementation	Customer relationship techniques and procedures can be influenced by the IT available in the market.
	to define customer data model	Customer data model is an important element for CRM strategy. It can be inside an IT.
Ability to define customer data model	to identify customer value	The customer data model is an important task, because all the relationships will be based on this model.
Ability to identify customer value	to segment customers	Depending on the customer value, a company will define a cluster of customers and will offer special treatment and a specific campaign.
Ability to segment customer	to communicate effectively with customer	Companies use the customer segmentation competence in order to improve knowledge related to each specific cluster and offer more valuable relationship with customers.
To improve techniques and procedures for CRM implementation	to communicate effectively with customer	The definitions of customer relationship techniques and procedures are crucial for the improvement of the way a company interacts with the customer in order to strengthen the relationship.
Ability to communicate effectively with customer	to perceive customer needs and expectations	Customer needs and expectations are easier to perceive if a customer feels comfortable in a relationship with a company - trusts the company and knows that a close relation will generate benefits to him/her.
	to define products and services according to customers expectations	CRM is closely related to the organisational capacity to innovate. Effective communication with a customer is crucial for their satisfaction with a new offer.
Ability to perceive customer needs and expectations	to define products and services according to customer expectations	After listening to the customers, a company is able to conceptualise and offer products and services that fit customers' expectations.

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