Carl-Erik Wikström

An investigation into factors for successful customer relationship management implementation: Change, information technology and the human being

ACADEMIC DISSERTATION

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Acknowledgements

In the year 1985 the concept customer relationship management (CRM) was completely unknown. However, at that time an emerging trend in organizations towards implementing "database marketing" provided promising business opportunities for a newly founded company Major Blue Oy, where I became a partner, too. The topic area of this dissertation is grounded on my personal observations in several projects for implementing database marketing systems. After all, the implemented systems did not always seem to "pay back", which raised my intellectual interest in exploring scientifically the area of information systems implementation success. At that time I was not that familiar with the theory of marketing science either.

In 1989 I heard that Professor Pertti Järvinen had started to arrange a doctoral seminar in the Department of Computer and Information Sciences at the University of Tampere. After having contacted Pertti, he immediately encouraged me to join the doctoral seminar and to continue my post-graduate studies. This then led me to complete the Licentiate thesis in 1995. Since the economic slowdown in early nineties in software business in Finland demanded more of my mental resources to be dedicated to the co-managing of the software company, the research work came close to a stand-still for the following six years.

In the beginning of the new millennium the Information Technology Postgraduate Education Program INFWEST.IT was started and I decided to join the program in order to continue my doctoral studies. The new emerging trend in marketing, which came to be known as CRM, offered new business opportunities for Major Blue Oy as well as new and interesting research topics for me on the area of CRM success. After having in 2002 presented my topic analysis in an INFWEST.IT research seminar and received encouraging feedback from the IS research community, my doctoral dissertation work got a new push.

The process of preparing this dissertation has been a long journey for me and I sincerely want to express my gratitude to Pertti, who became the official supervisor for my doctoral dissertation, and who along the whole journey has open-mindedly read dozens of versions of my research manuscripts and has with great talent and without loosing his faith in my research work been guiding me and helping me to keep my work on track. Furthermore, I would like to thank Pertti for his extraordinary work of managing the post-graduate IS seminar at the University of Tampere. Pertti's amazing ability to attract also practitioners to join the post-graduate program has meant a lot to all those individuals, including me, who have had the motivation for practicing life-long learning but who would otherwise have lacked a supportive research community. I would also like to thank all the IS post-graduate fellow students for their constructive comments and criticism along the way of my research process.

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Professor Christian Grönroos from the Swedish School of Economics and Business Administration as well as Professor Niels Bjørn-Andersen from the Copenhagen Business School have acted as the official referees. I would like to express my deepest gratitude to Prof. Christian Grönroos, who as internationally the most distinguished and honoured scholar in the field of service and relationship marketing has given me excellent and supportive guidance during the whole referee process. Prof. Grönroos has greatly helped me to increase the quality of the dissertation. Furthermore, my sincere thanks go to Prof. Niels Bjørn-Andersen, who as a renown scholar in the field of information systems research has critically but constructively guided me to greatly enhance the dissertation and especially the conceptual-analytical paper of human-centredness in CRM approaches.

I owe thanks to Professor Erkki Mäkinen from the Department of Computer Sciences at the University of Tampere for helping me in many practical matters during the publishing process of the dissertation.

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The conducting of qualitative research requires proper access to the field of practice. Therefore I am most grateful to Mr. Asko Vainionpää, Mr. Juho Karjalainen and Mr. Henrik Andersin for providing me with good access to their respective organizations.

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Helsinki, May 2008

Carl-Erik Wikström

Abstract

The importance of effective customer relationships as a key to customer value is widely emphasized and therefore many companies have adopted a relationship marketing approach to manage and improve relationships with customers for long-time profitability. Customer relationship management (CRM) uses information technology in implementing relationship management strategies, and it assists companies to gather customer data, identify the most valuable customers, and increase customer loyalty by providing customized products and services. However, it has been shown that CRM may often fail to produce the expected results. When companies start to adopt relationship marketing strategies, there is often a need to transform the relevant marketing, sales and service processes to become more customer oriented. The transformation of processes may have an effect on the human beings carrying the various sales, service and managerial roles.

This dissertation explores qualitatively issues of CRM success from three perspectives: organizational change, the implementation of the information technology (IT) artefact and from the perspective of the role and qualities of the human being as a CRM success factor. In this study multiple approaches in exploring CRM success have been applied: first a case study into the phenomenon of change in a CRM implementation was conducted, secondly design science approach in investigating the piloting of CRM was applied, and thirdly the dissertation is concluded by a conceptual analytical study into the human-centredness of CRM.

Based on this dissertation it has been empirically shown that for successful CRM implementation it is important for the company to first establish a clear customer relationship strategy. First then should the company engage in the organizational transformations, which are in many cases needed in order to align business processes and people with the customer-focused strategy. In this study evidence is given to the fact that even though transformational issues may affect CRM success, change should be investigated from a broader perspective than focusing on intentional change events only: emergent and unintentional change should be included as important factors in future CRM success research, too. Moreover, it is shown in this study that the piloting of CRM does not necessarily support successful CRM implementation. On the contrary piloting may even raise the risk for failure.

Traditionally human beings are seen in a very fragmented manner in CRM, and most often only one type of human qualities like e.g., cognitive or emotional features are taken into account. In this study evidence is given that in most CRM approaches the prevailing conception of humans is monistic. The human being is seen as consisting of only one basic mode of being in that humans are conceptualized as objects with no mental and social qualities. The prevailing image of the human being in CRM is often a managerial one and it is suggested that CRM

would better succeed if a more holistic approach to the human beings would be acknowledged. In order to understand the active human being as a whole, one needs to pay attention to both the interacting basic human modes of being and their tacit and explicit features in human knowledge management. In this dissertation the nature and qualities of humans in CRM theorization has been brought a fore, and thus new explications of the construct has been offered to serve as means for further research and also development of CRM applications.

Keywords: organizational change, CRM success, piloting, IS implementation, qualitative research, conception of the human being, human-centredness

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List of publications

The dissertation consists of the following original research papers[*]:

Paper 1:

Wikström, C-E., A case study of emergent and intentional organizational change: Some implications for customer relationship management success. Published in the Proceedings of the HICSS37 (Hawaii International Conference on System Sciences), January 2004, pp. 1-10, (Conference Proceedings, copyright by IEEE Computer Society).

Paper 2:

Wikström, C-E., A design science approach to investigating the piloting of customer relationship management. Published in the Proceedings of the 2006 Information Resources Management Association International Conference, 2006, pp. 212-215.

Paper 3:

Wikström, C.-E. and Isomäki, H. Human-centredness in customer relationship management implementation research: Towards a holistic perspective. To be submitted to the International Journal of E-Business Research. Available at http://www.cs.uta.fi/reports/dsarja/D-2008-2.pdf in the Series of Publications D-2008-2, April 2008, University of Tampere, Department of Computer Sciences.

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1. Introduction to the research domain

The importance of effective customer relationships as a key to customer value and hence shareholder value is widely emphasized (Wilson, Daniel and McDonald 2002; Payne 2006). Relationship marketing is concerned with how organizations manage and improve their relationships with customers for long-time profitability (Grönroos 1994; Ryals and Payne 2001). Over the past ten years using information technology (IT) in its many forms in implementing relationship marketing strategies has received particular attention (Ryals and Payne 2001; Romano and Fjermestad 2001; Puhakainen 2003). Customer relationship management (CRM) uses IT in implementing relationship management strategies, and it may allow companies to gather customer data swiftly, identify the most valuable customers over time, and increase customer loyalty by providing customized products and services (Rigby, Reichheld and Schefter 2002). CRM may also reduce the costs of serving these customers and make it easier to acquire similar customers in the long run. However, it has been shown (Bhatia 1999; Peppard 2000; Yu 2001; Abbott, Stone and Buttle 2001; Bose 2002; Starkey and Woodcock 2002; Croteau and Li 2003; Fjermestad and Romano 2003; Wikström 2004) that CRM may often fail to produce the expected results.

According to a survey by CRM Forum (in Rigby et al. 2002), when asked what went wrong with their CRM projects, 87% of the managers pinned the failure of their CRM programmes on the lack of adequate change management. When organizations start to adopt relationship marketing strategy, it often implies a need to transform the marketing, sales and service processes from product orientation into customer orientation (Goodhue, Wixom and Watson 2002; Corner and Hinton 2002; Plakoyannaki and Tzokas 2002; Rigby et al. 2002). Change is seen as a necessary prerequisite to make the selected relationship marketing strategy work in practice, which implies the need for planned change. However, change in its many forms - not forgetting emergent change (Markus and Robey 1988) - has not been thoroughly investigated as a potential factor affecting successful CRM. I have therefore chosen to select organizational change as one of the main objects of my exploration into CRM success.

In the study of CRM projects by The Data Warehousing Institute (TDWI Industry Study 2000, p. 13) 41 percent of the surveyed organizations had been either "experiencing difficulties" or had a "potential flop". Moreover, the risk involved in IT implementations has been covered in many research projects (Lyytinen, Mathiassen and Ropponen 1998; Markus 2004). Markus (2004) has suggested that

one avenue of reducing risk is to apply "prototyping" techniques. The goal of reducing risk of failure may be for a company the main motivation to rely on piloting, but there might be other motivations: the fear for resistance, the need for gaining organizational commitment, and the uncertainty which surrounds the whole concept of CRM. In order to investigate the phenomenon of piloting as a potential CRM success factor, I decided to include a case study of CRM piloting in this dissertation. As a research approach I have in my case study applied design science. This is a new research approach in the field of CRM.

The change of the marketing, sales and service processes may have an effect on various organizational tasks, roles and employees' job descriptions. The human beings carrying the roles of sales people, service persons or managers are affected. CRM initiatives have become strategic in many companies (Yu 2001). Markus (2004, p. 2) argues why using IT strategically to drive organizational performance improvements involves great potential impacts on "the users" (people, processes and organizational performance). Inherent in the notion of "the users" the human being is seen as an actor, which is in accordance with the tool perspective of computer artefacts: people use IS as tools for something they consider worth doing. Other authors directly or indirectly include the notion of the human being in their models of successful CRM. Plakoyiannaki and Tzokas (2002, p. 233-234) talk about the importance of "learning capabilities" and "operational capabilities" like skills developed at functional and administrative levels. Chen and Popovich (2003, p. 675) introduce "people as critical components to successful CRM implementations". Fjermestad and Romano (2003) suggest that usability and "resistance" would be factors affecting successful CRM implementations. Boulding et al. (2005, p. 155) note that "as little is known about how people issues connect to the success of CRM activities, we believe that this is an area worthy of researcher attention". Payne and Frow (2005) have developed an extensive conceptual framework for CRM, but they have left out the human issues altogether. However, they do emphasize that human issues are a priority area for further research (Payne and Frow 2005, p. 167): "CRM can fail when a limited number of employees are committed to the initiative; thus, employee engagement and change management are essential issues in CRM implementation". As the full potential of humans has not been taken into account in the CRM implementation success research, I decided to, from a holistic (Isomäki 2002) perspective, study the image and the qualities of the human being as a CRM implementation success factor.

To conclude I shall investigate the potential factors affecting successful CRM from three perspectives: firstly from the perspective of organizational change and how it takes shape in the CRM context; secondly, how the introduction of the very CRM application in the organization (in the form of piloting CRM) may support or hinder successful CRM; thirdly, what is the image of the human being in the context of CRM and what are the human qualities present in the earlier research on CRM implementation success. In the next section the core concepts of relationship marketing, customer relationship management, CRM success and organizational change are analyzed. In the section thereafter I shall present my research approach and the research framework. Thereafter I shall present my published research reports, which are linked to this framework. Finally, I summarize the implications of

my study to science and practice, present the limitations of the study and suggest ideas for future research.

2. An analysis of core concepts

2.1 The evolution of marketing

Marketing the way most textbooks treat it today was introduced around 1960 (Grönroos 1994). The concept of the marketing mix and four Ps of marketing (product, price, place and promotion) entered the marketing textbooks at that time (McCarthy 1960). However, according to Grönroos (1994) marketing in practice had to a large extent been turned into managing this toolbox instead of truly exploring the nature of the firm's market relationships and genuinely catering to the real needs and wants of customers. Grönroos (1994) pointed out that any marketing paradigm should be well set to fulfil the marketing concept, i.e. the notion that the firm is best off by designing and directing its activities according to the needs and wants of customers in chosen target markets. Moreover, Grönroos (1994) argued that the marketing mix paradigm is not very well fit to do that. For several reasons: the marketing mix and its four Ps constitute a production-oriented definition of marketing, and not a market-oriented or customer-oriented one; the model itself does not explicitly include any interactive elements; it does not include the nature and scope of such interactions.

To challenge the marketing mix paradigm, new theories and models of marketing have been emerging: interaction/network approach to industrial marketing, marketing of services and relationship marketing. According to the interaction/network approach a large number of persons in functions which according to the marketing mix management paradigm are non-marketing, such as research and development, design, deliveries, customer training, invoicing and credit management, has a decisive impact on the marketing success of the seller in the network. Gummesson (1987 and 1991) has coined the term part-time marketers for such employees of a firm. According to Gummesson (1991) part-time marketers carry out marketing activities but, in contrast to the full-time marketers, they do not belong to the marketing or sales department. Gummesson (1991) has shown that the significance of part-time marketer has especially been emphasized in the service marketing theory and the network/interaction theory of industrial marketing. Gummesson (1991) furthermore, argues that a third non-marketing area, total quality management, has had implications for marketing and the part-time marketer concept in particular.

In the early 1970s the marketing of services started to emerge as a separate area of marketing with concepts and models of its own geared to typical characteristics of services. Reeves and Bednar (1994, p. 426) have demonstrated factors of how services are "differentiated from products in a number of ways. They are primarily intangible, making it impossible to stock services in the same way one would stock goods, and their attributes are difficult to demonstrate. To a large extent, services are simultaneously produced and consumed; consequently, firms cannot use inventories to manage fluctuations in demand. Customer involvement in the production of many services creates additional quality-control difficulties for managers. Services also are considered to be extremely perishable and to be a process rather than a thing". In Scandinavia and in Finland, the Nordic School of Services looked at the marketing of services as something that cannot be separated from overall management (Grönroos and Gummesson 1985; Grönroos 2007). Moreover, Grönroos (1982) introduced the perceived service quality concept and the concept of the interactive marketing function (Grönroos 1979 and 1982) to cover the impact of the customer during the consumption or usage process, where the consumer of a service typically interacts with the systems, physical resources and employees of the service provider. These interactions occur between the customer and employees who normally are not considered marketing people, they are part-time marketers. In many situations long-lasting relationships between service providers and their customers may develop. Grönroos developed the customer relationship life-cycle model (Grönroos 1980 and 1982), originally called the “marketing circle”, to cover the long-term nature of the establishment and evolution of the relationship between a firm and its customers.

A growing and most recent stream of marketing research suggests that by understanding the value of the customer asset to the firm and by actively managing the customer as a strategic asset, firms can increase the overall value of the firm and, ultimately, shareholder value (Hogan, Lemon and Rust 2002). The shift toward customer equity management has been among other things driven by massive investments in customer relationship management technologies and data warehouses have outstripped the ability of managers to synthesize the data and, therefore, necessitate a new approach to strategic decision making (Hogan et al. 2002). Hogan et al. (2002, p. 5) define customer equity management as a comprehensive management approach that focuses the efforts of the firm on increasing the lifetime value of individual customers (i.e., the firm’s customer assets) in a way that maximizes customer equity.

During the past fifteen years there has been a growing interest in studying the economics of long-lasting customer relationships (Ryals and Payne 2001). Long-term relationships where both parties over time learn how to best interact with each other, may lead to decreasing relationship costs for the customer and for the supplier or service provider. A mutually satisfactory relationship may make it possible for customers to avoid significant transaction costs involved in shifting supplier or service provider and for suppliers to avoid suffering unnecessary quality costs (Grönroos 1994). Reichheld and Sasser (1990, p. 106) analyzed over 100 companies in twenty-four industries and found out that “served correctly, customers generate increasingly more profits each year they stay with a company”. Furthermore,

Reichheld and Sasser (1990, p. 105) found out that "companies can boost profits by almost 100% by retaining only 5% more of their customers", which was in their analysis the outcome of one company in the credit card industry. Colgate and Danaher (2000) have pointed out some advantages to the customer of relationship marketing (RM): customers receive psychological benefits such as familiarity, personal recognition and friendships; consumers may engage in long-term relationships to obtain discounts; customers may gain customization benefits as service providers tailor their services to meet customer's specifications and requirements. It should be noted that, as the concept of marketing strategy continuum (Grönroos 1994, p. 9) illustrates, relationship marketing is not necessarily a dominating paradigm, but that "it is useful to think about possible marketing approaches or strategies along a marketing strategy continuum, where relationship marketing is placed at one end of the continuum. Here the general focus is on building relationships with customers. At the other end of the continuum is transaction marketing where the focus of marketing is on one transaction at a time". Inspired by Grönroos (1994) I have in Table 1 collected the emergent trends in marketing.

Reference	**1950**	**1960**	**1970**	**1980**	**1990**	**2000**
Hogan, J.E., Lemon, K.N. and Rust, R.T., Customer Equity Management, Charting New Directions for the Future of Marketing, Journal of Service Research, Vol. 5, No. 1, August 2002, 4-12.						**Customer equity management** **Customer relationship management**
Grönroos, C., The Marketing Strategy Continuum: A Marketing Concept for the 1990s', Management Decision, Vol. 29, No. 1, 1991, 7-13.					**Marketing strategy continuum**	
Gummesson, E., Marketing-orientation Revisited: The Crucial Role of the Part-time Marketer, European Journal of Marketing, Vol. 25, No. 2, 1991, 60-75.					**Part-time marketer concept**	
Berry, L.L., Relationship marketing, in Berry, L.L., Shostack, G.L. and Upah, G.D. (eds.), Emerging Perspectives of Services Marketing, American Marketing Association, Chicago, IL, 1983, 25-28.				**Relationship marketing**		

Reference	1950	1960	1970	1980	1990	2000
Grönroos, C., Strategic management and Marketing in the Service Sector, Swedish School of Economics and Business Administration, Helsingfors, Finland, 1982. Grönroos, C., Designing a Long-Range Marketing Strategy for Services, Long Range Planning, Vol. 13, April 1980, 36-42.				**Customer relationship life-cycle model** **or** **The Marketing Circle**		
Grönroos, C. and Gummesson, E., The Nordic School of Service Marketing, in Grönroos, C. and Gummesson, E., (Eds), service Marketing – Nordic School Perspectives, Stockholm University, Sweden, 1985, 6-11. Grönroos, C., In Search of a New Logic for Marketing: Foundations of Contemporary Theory. Chichester: John Wiley & Co, 2007.			**Marketing of services and The Nordic School of Services** **Interactive marketing function**			
McCarthy, E.J., Basic Marketing, Irwin, Homewood, IL, 1960.		**Marketing and The four Ps, Transaction marketing**				
Borden, N.H., The Concept of The Marketing Mix, Journal of Advertising Research, Vol. 4, June 1964, 2-7.	**Marketing mix concept**					

Table 1. Emergent trends in marketing

A review of relationship marketing literature (Harker 1999) reveals many attempts by several authors to define relationship marketing. Harker (1999) conducted an extensive content analysis of 117 different scientific articles and as a result collected 26 varying definitions of RM. In each of these definitions one or more of the following seven conceptual categories of RM were present: creation (attracting, establish, getting); development (enhancing, strengthening); maintenance (sustaining, stable, keeping); interactive (exchange, mutually, co-operative); long

term (lasting, permanent, retaining); emotional content (commitment, trust, promises); output (profitable, rewarding, efficiency). Harker (1999, p. 15) also noted that "currently the level of shared understanding between relationship marketing schools is low, reflecting the diverse origins of these theories". However, Harker (1999) in his sample found out six definitions of RM, in which at least six from the seven conceptual categories were present. As a representative definition of RM I have out of these six definitions selected that of Grönroos (1994, p. 9). He defines relationship marketing in the following way: "Marketing is to establish, maintain and enhance relationships with customers and other partners, at a profit, so that the objectives of the parties involved are met. This is achieved by mutual exchange and fulfilment of promises". Establishing a relationship with a customer can be divided into two parts (Grönroos 1994): to attract the customer and to build the relationship with that customer so that the economic goals of that relationship are achieved.

There are also some more practice-oriented descriptions of relationship marketing: for example, the one by Copulinsky and Wolf (1990) that states that relationship marketing is a process where the main activities are to create a database including existing and potential customers, to approach these customers using differentiated and customer-specific information about them, and to evaluate the life-term value of very single customer relationship and the costs of creating and maintaining them. This definition includes the role of IT in supporting the relationship marketing processes. In the next section I shall discuss the role of IT in this context in more detail.

2.2 The role of information technology in customer relationship management

Technology can greatly assist companies in managing the data needed to understand customers, so that appropriate relationship marketing strategies can be developed (Ryals and Payne 2001). In addition the use of IT enables the necessary data to be collected in order to determine the economics of customer acquisition, customer retention and lifetime value. In order to facilitate improved retention and lifetime profitability, companies need to use the appropriate technology tools and are adopting customer relationship management approaches for assisting in implementation. Plakoyiannaki and Tzokas (2002, p. 229) define customer relationship management from a process perspective "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 identified existing and potential customer segments". Furthermore, Plakoyiannaki and Tzokas (2002, p. 229) state that "implicit within this definition lay three core precepts of CRM namely, market orientation, information technology and integration". Storbacka and Lehtinen (2001,

p. 3) maintain that "the aim of CRM is to build relationship strategies that refine relationships and thus increase their value". According to Storbacka and Lehtinen (2001, p. 5) there are three cornerstones of CRM, namely customer value creation, viewing the product as a process and the provider's responsibility for developing customer relationships and offering its customers possibilities to create value for themselves. In line with Storbacka and Lehtinen (2001) Payne and Frow (2005, p. 168) point out that "from a strategic viewpoint, CRM is not simply an IT solution that is used to acquire and grow a customer base; it involves a profound synthesis of strategic vision; a corporate understanding of the nature of customer value in a multichannel environment; the utilization of the appropriate information management and CRM applications; and high-quality operations, fulfilment and service". We can see that CRM originates from the conceptual and theoretical foundation of relationship marketing (Grönroos 1994): CRM serves to improve marketing efficiency and enhance mutual value for both parties involved. This is achieved by continuous, organization-wide acquisition and dissemination of (customer) information and responsiveness to market imperatives.

According to another definition (Rigby et al. 2002, p. 102) "CRM aligns business processes with customer strategies to build customer loyalty and increase profits over time". In this definition the words technology and software are totally absent. Bhatia (1999, p. 3) defines CRM very much in-line with the earlier definitions: "CRM is a discipline and a set of discrete software and technologies which focuses on automating and improving the business processes associated with managing customer relationships in the areas of sales, marketing, customer service and support". Based on the definitions above I have in my research underlined the alignment of the three components: business strategy (i.e., relationship marketing strategy), processes which support this strategy and IT.

CRM software applications not only facilitate the coordination of multiple business functions (sales, marketing, customer service and support) but also coordinate multiple channels of communication with the customer (e.g., face to face, call centre and the web) so that organizations can accommodate their customers' preferred channels of interaction. In order to manage a relationship with an individual customer, the company must be able to "see" the relationship with the customer as a whole. Seeing the relationship with the customer as a whole involves all the interactions the customer has with the firm, regardless of the channel the customer uses (Ryals and Payne 2001). Also central for a CRM information system is the central repository of customer data collected from every "touch point" in the company-customer interaction.

Interactive digital networks (IDN) based relationship marketing has been defined as a distinctive IT-enabled relationship marketing approach (Puhakainen 2003), which relies on the power of IDNs and databases to handle millions of customers individually and where the relationships are based on technology. In IDN-based relationship marketing interactions are typically between an application and a human being, but also human-to-human interactions are possible (Puhakainen 2003). My research interest, however, is in the "classical" IT-assisted relationship-focused marketing, which relies more on traditional interpersonal relationships (like

in industrial marketing), and where the interaction between human beings on both the seller's and the customer's side is crucial.

CRM initiatives have emerged as strategic and high priority projects in an increasing number of organizations (Croteau and Li 2003), but even though CRM projects can achieve some of the highest return on investment they also suffer from some of the highest rates of failure (Bhatia 1999; Peppard 2000; Abbott et al. 2001; Yu 2001; Bose 2002; Croteau and Li 2003; Fjermestad and Romano 2003; Wikström 2004). In the next section I shall introduce various perspectives on CRM success and in the section thereafter I shall present some of the success factors, which have been introduced in the existing CRM success literature.

2.3 What is CRM success?

A CRM implementation may be seen as successful if it meets the expectations of the adopting company (Yu 2001). However, when a firm is implementing CRM and using IT in ways that can trigger major organizational changes, this creates high-risk, potentially high-reward, situations that Markus (2004) calls technochange (for technology-driven organizational change). According to Markus (2004) technochange differs from typical IT projects and from typical organizational change programmes and therefore requires a different approach. Markus (2004) argues that one major risk in technochange - that people will not use information technology and related work practices - is not thoroughly addressed by the discipline of IT project management, which focuses on project cost, project schedule and solution functionality. Organizational change management approaches are also generally not effective on their own, because they take as a given the IT 'solutions' developed by a technical team. Consequently, the potential for the IT 'solution' to be misaligned with important organizational characteristics, such as culture or incentives, is great. Markus (2004) further introduces the concept technochange lifecycle model consisting of four phases: idea generation, solution design, solution implementation and benefit capture. I argue that the CRM implementation phase should be seen as only one episode in the whole CRM technochange lifecycle, namely corresponding to the "solution implementation" phase. Furthermore a CRM process resembles the whole technochange lifecycle, where the process begins by idea generation (similar to a company's adoption of relationship strategy), then follows the solution design (equivalent to both the need to transform organizational processes to meet the strategic organizational capabilities, as the construction of the IT solution – the CRM system – itself), thereafter the solution implementation (the phase where the constructed CRM system is implemented in the organization) and finally the benefit capture (the phase where the benefits from the implementation and the results from the transformations take place; in addition to these the CRM

system should be aligned with the adopted relationship marketing strategy). So, when considering successful CRM my argument is that one should investigate the whole CRM process from "idea generation" all through to "benefit capture".

Wilson et al. (2002) define CRM success factors as issues influencing the success of an IT-enabled intervention which is designed to effect business change. They suggest that any project to introduce or enhance CRM can be seen as a modification of, or intervention in, the mode of working of the organization, the effects of which may be contingent upon a number of factors. A broader view to the factors for CRM success is introduced in Zablah, Bellenger and Johnston (2004), where the authors present five different perspectives on CRM: process, strategy, philosophy, capability and technology perspectives. According to Zablah et al. (2004) from the process perspective CRM success is contingent upon a firm's ability to detect and respond to evolving customer needs and preferences. From the strategic perspective CRM success requires that firms continually access and prioritize customer relationships based on their relative lifetime profitability. Philosophically CRM success requires that firms be customer-centric and are driven by an understanding of customer's changing needs. From the capabilities perspective CRM success is contingent upon a firms' possession of a set of tangible and intangible resources that afford it the flexibility to change its behaviour towards individual customers on an ongoing basis. Finally from the technological perspective CRM success is primarily driven by the functionality and user acceptance of the technology firms implement in an attempt to build customer knowledge and manage interactions. I have in my dissertation in more detail investigated four of the above five success topics: strategy (the relevance of the existence of a relationship marketing strategy), process (the relationship marketing processes and the potential need for transforming them), capability (in terms of the human capabilities of a firm) and technology (the CRM system) perspectives. However, I have left the philosophical dimension to less attention.

2.4 Literature review of factors associated with CRM success or failure

In this section a literature review of emergent CRM success or failure factors are presented. The factors have been summarized in Table 2. Change, the role of IT and human-centred issues in CRM success are my main research objects in this dissertation. Therefore I have in Table 2 presented some comments on how the respective success or failure factors relate to these issues. Colgate and Danaher (2000) investigated factors affecting customer satisfaction when implementing a relationship strategy. The authors pointed out that before embarking on a relationship strategy, a firm should be aware of the benefits and drawbacks of such a strategy. Based on earlier research and literature the following factors were found to

be desirable prerequisites for making a relationship strategy more appropriate: internal marketing and employee empowerment, profitable target segments, a business strategy emphasizing service, sufficient levels of involvement, high experience or credence qualities (greater risk and uncertainty) and the ability to calculate relationship performance (Colgate and Danaher 2000). Corner and Hinton (2002) examined the implementation risks and relationship dynamics in a British case company, and found that politics and vested interests, the need for mobility and inadequate funding were significant risks associated with the implementation of CRM systems. If we look at these identified risk categories from the IS/strategy alignment perspective, they seem to be related to IS infrastructure issues (mobility), business process issues (funding) and business strategy issues (politics).

Plakoyiannaki and Tzokas (2002) proposed that one probable reason for the discrepancy between theory (many companies failed to make their CRM initiatives pay off) and practice is the lack of guidelines assisting firms to identify and develop capabilities enabling the system. Having as starting point the CRM process the authors proposed that the following set of capabilities determines the success of the CRM system: learning and market orientation capabilities, integration capabilities, analytical capabilities, operational capabilities and direction capabilities.

Rigby et al. (2002) point out four factors affecting successful CRM implementations negatively: firstly, the implementing of CRM system before a business strategy (=customer relationship marketing strategy) has been created; secondly, rolling out CRM before changing the company's organization. The authors maintain that a CRM roll-out will succeed only after the organization and its processes – job descriptions, performance measures, compensation system, training programmes and so on – have been restructured in order to better meet customers' needs. The key business processes, that relate to customers, from customer service to order fulfilment, have to be changed first. Thirdly, "assuming that more CRM technology is better", by which Rigby et al. (2002, p. 104) mean that "customer relationships can be managed in many ways, and the objectives of CRM can be fulfilled without huge investments in technology simply by, say, motivating employees to be more aware of customer needs". Fourthly, relationships are two-way streets. "You may want to forge more relationships with affluent customers, but do they want them with you"? Fail to build relationships with customers who value them, and you are bound to lose these people to a competitor. Rigby et al. (2002) conclude that successful CRM depends more on strategy than on the amount you spend on technology, and they point out that you will also need to effectively lead and manage change. According to a survey by CRM Forum (in Rigby et al. 2002), when asked what went wrong with their CRM projects, 4% of the managers cited software problems, 1 % said they received bad advice, but 87% pinned the failure of their CRM programmes on the lack of adequate change management.

In the financial sector Ryals and Payne (2001) conducted an extensive investigation into the adoption and use of CRM. They found support for several factors being potential barriers for successful CRM deployments. Lack of skills in building and using the system were frequently mentioned as a major barrier to the implementation of CRM. Gaining adequate funding for CRM requirements was an important issue for organizations. Poor data quality and quantity were seen as

barriers. However, quantity (i.e. the need for more detailed information about customers to add to the data warehouse) was seen as a greater problem than data quality. Failure to understand the benefits of a marketing database was also seen as a barrier. Functional boundaries in the form of the business unit managers not willing to cooperate, often because they had a proprietorial approach to the customer, were mentioned as a barrier to the implementation of CRM. Furthermore, measurement and reward systems were mentioned as barriers, too.

In their extensive investigation into the factors that influence the successful deployment of CRM applications Wilson et al. (2002), using the analytic induction method, derived several success factors from five in-depth case studies. Their results support various success factors identified by earlier authors: the importance to the success of IT/marketing initiatives of a market orientation; the need for business system convergence on a single view of customers and other entities such as competitors; the need to include cultural change issues within the project's scope; the need to design for flexibility; and the need to manage IT infrastructure. According to Wilson et al. (2002) resulting factors underemphasized in earlier literature included the need for project approval procedures which allow for uncertainty; the need to leverage models of best practice; the importance of prototyping new processes, not just IT; and the need to manage for the delivery of the intended benefits, rather than only implementing the original specification.

Paper	**CRM success factors and potential risks of failure**	**Comment**
Colgate and Danaher (2000)	**Internal marketing**	
	Employee empowerment	
	Profitable target segments	
	Business strategy emphasizing service	The authors examine the implementation of a personal banker strategy as a means to developing customer relationships in the retail banking industry and the human being is seen as an instrument to enable the relationship strategy of the bank.
	Sufficient levels of involvement	
	High experience or credence qualities	
	Ability to calculate relationship performance	
Corner and Hinton (2002)	**Politics and vested interests**	The authors maintain that all "players" in the implementation should be able to share experience of CRM use with others and have the sense of belonging to a social group. However, political infighting may result in the failure to obtain committed support for a CRM implementation.
	Need for mobility	
	Inadequate funding	
Plakoyiannaki and Tzokas (2002)	**Learning and market orientation capabilities**	The authors define capabilities "as the capacity to deploy resources by integrating knowledge, business processes and organizational learning". By analysing their capability framework, it is very hard to identify the human being in any of the explicated capabilities.
	Integration capabilities	The integration capabilities emphasize IT issues and the capability to integrate various IT systems together in order to enable a "360 degree view of a customer".

Paper	CRM success factors and potential risks of failure	Comment
	Analytical capabilities	
	Operational capabilities	Embedded in the presentation of operational capabilities is the notion of "utilized and enhanced (human) resources" and "(human) skills developed at functional and administrative levels".
	Direction capabilities	
Rigby, Reichheld and Schefter (2002)	**Implementing of CRM system before a business strategy has been created**	Here the authors point out that strategy is more important than the implementation of an IT solution.
	Rolling out CRM before changing the company's organization	This factor emphasizes the need for changing processes to be aligned with chosen relationship marketing strategy.
	Assuming that more CRM technology is better	Here the authors undermine the importance of IT in relation to strategic, process and human factors.
	Relationships are two-way streets	This issue points out the fact that salespeople often build relationships with customers they like but who necessarily aren't the most profitable ones, or try to build relationships with the right customers in the wrong way. This success factor relates to the psychological qualities of the human being in contacting a customer: emotions like sympathy direct the behaviour of the human being, but at the same time a need for a goal-oriented pragmatism should be the proper way to direct the conduct.
Ryals and Payne (2001)	**Lack of skills in building and using the CRM system**	Humans lack analytical skills in order to "ask the right questions" during the implementation phase of a CRM system. Humans want to retain their proprietorial ownership of a customer and fear of losing their power if they share their information on customers with others.
	Gaining adequate funding for CRM requirements	
	Poor data quality and quantity	
	Failure to understand the benefits of a marketing database	
	Measurement and reward systems	
Wilson et al. (2002)	**Need for project approval procedures which allow for uncertainty**	This aspect emphasizes the importance of involving users interactively in system design and acknowledges their intellect and capability to address conceptions of design issues suitable to themselves.
	Need to leverage models of best practice	This aspect highlights humans as willing to learn about their own work processes and refers to learning which stresses both cognitive and social human features.
	Importance of prototyping new processes, not just IT	Prototyping is seen as a means to enhance CRM success but emphasis is on prototyping both the CRM processes and the IT solution.
	Need to manage for the delivery of the intended benefits	

Table 2. Emergent CRM success factors and potential risks of failure

We may note that a prevailing theme in most of the references quoted above is change. Change is mentioned in the form of a need to transform the organization to

become more customer focused. Change is also seen as a necessary prerequisite to make the selected relationship marketing strategy work in practice. However, change - including its many forms, and not forgetting emergent change (Markus and Robey 1988), too - has as a potential factor affecting successful CRM not been investigated thoroughly in earlier studies. I therefore chose to select organizational change as one of the main objects of my exploration into CRM success. In the following section I shall analyze relevant former research into organizational change.

2.5 Organizational change

Research in organizational change has a long history in Information Systems and Management Science (Markus and Robey 1988; Clemons, Thatcher and Row 1995; Orlikowski 1995; Van de Ven and Poole 1995; Feldman 2000; Huy 2001; Jasperson, Butler, Carte, Croes, Saunders and Zheng 2002; Tsoukas and Chia 2002; Buchanan 2003). Markus and Robey (1988) examine theories in terms of their structures – theorists' assumptions about the nature and direction of causal influence. Three dimensions of causal structure are considered - causal agency, logical structure and level of analysis. Causal agency refers to beliefs about the nature of causality: whether external forces cause change (technological imperative), whether people act purposefully to accomplish intended objectives (organizational imperative) or whether changes emerge unpredictably from the interaction of people and events (emergent perspective). Logical structure refers to the temporal aspect of theory - static vs. dynamic - and to logical relationships between the "causes" and the outcomes [whether causes are related to outcomes in an invariant, necessary and sufficient relationships (variance models), or in a recipe of sufficient conditions occurring over time (process models)]. The emergent perspective is typified by studies applying the structurational model of technology. The emergent perspective views the introduction of IT into an organizational setting as a catalyst, initiating a series of reciprocal causes and effects from which the use of the technology and the organizational outcomes arise. Level of analysis refers to the entities about which the theory poses concepts and relationships - individuals, organizations and society.

Van de Ven and Poole (1995) introduce four basic theories for explaining processes of change in organizations: life cycle, teleology, dialectics and evolution. These four theories present different sequences of change events that are driven by different conceptual motors and operate at different organizational levels. Van de Ven and Poole refer to process as the progression of events in an organizational entity's existence over time. Change, one type of event, is an empirical observation of difference in form, quality, or state over time in an organizational entity. The entity may be an individual's job, a work group, an organizational strategy, a programme, a product, or the overall organization. Development is a change process

(i.e., a progression of change events that unfold during the duration of an entity's existence – from the initiation or onset of the entity to its end or termination). A process theory is an explanation of how and why an organizational entity changes and develops.

Orlikowski (1995) examine the use of a groupware technology in the context of customer support to understand how the technology is used to enable organizational changes over time. Building on its successful implementation of the groupware technology, a customer support department in Orlikowski's research project realized many organizational changes that altered the nature and distribution of work, forms of collaboration, utilization and dissemination of knowledge and coordination with internal and external units. These changes were enacted through a series of intended and opportunistic modifications to both the technology and the organization. Some of the organizational changes in Orlikowski's research were planned and some were emergent.

Huy (2001) proposes four ideal types of planned change processes, each with distinct temporal and non temporal assumptions, and each associated with altering a distinct organizational element. These types are commanding, engineering, teaching and socialization. Huy (2001) argues that tangible (concrete) versus intangible (abstract) contents of change are important attributes because they determine the level of difficulty and sequencing of change actions. The author maintains that literature on punctuated equilibrium indicates that there are at least two important elements, both of which tend to be large in scope: formal structures – official allocation of authority and division of responsibility among people and groups inside the organization – and systems of shared beliefs. While some isolated or less tightly coupled beliefs could be changed incrementally, change to a system of interrelated beliefs often mandates radical, second-order change. This refers to fundamental changes in the cognitive frameworks underlying the organization's activities, changes in the deep structure or shared schemata that generate and give meaning to these activities. Changes to tightly coupled formal structures associated with strong power bases and deep systems of beliefs often require a forceful intervention and discontinuous replacement. Complementing the episodic, punctuated equilibrium perspective focusing on radical, discontinuous changes in formal structures or systems of beliefs, the continuous change perspective draws our attention to at least two other important elements: work processes and social relationships. Work processes refer to what employees actually do collectively to deliver products and services to customers. Social relationships refer to the nature and quality of interpersonal interactions among employees in their daily work.

Tsoukas and Chia (2002) set out to offer an account of organizational change on its own terms – to treat change as the normal condition of organizational life. Buchanan (2003) considers the methodological implications arising from competing narratives of an organizational change process and demonstrates polyvocality of organizational change research. Jasperson et al. (2002) uses a metatriangulation approach to explore the relationships between power and information technology impacts, development or deployment and management or use in a sample of 82 articles from 12 management and MIS journals published between 1980 and 1999. They explore the multiple paradigms underlying their research by applying two sets

of lenses to examine the findings from their sample: technology lenses and power lenses. Jasperson et al. (2002) - based on Markus and Robey (1988) – define the technology lenses as consisting of the technological imperative, organizational imperative and emergent perspectives. Technology lenses are used to better understand researchers' views regarding the causal structure between IT and organizational power. A second set of lenses, which includes the rational, pluralist, interpretive and radical perspectives (Bradshaw-Camball and Murray 1991), is used to focus on researchers' views of the role of power and different IT outcomes. Jasperson et al. (2002) then draw from this discussion to develop metaconjectures, (i.e., propositions that can be interpreted from multiple perspectives) and suggest guidelines for studying power in future research. I shall point out one of the metaconjectures for the emergent perspective, which has a relation to my study: "once power-altering IT has been introduced, it takes some time for the organization to reach a new equilibrium state. The indicators of IT's impact on a new equilibrium state are evidenced by new power structures, language and symbols" (Jasperson et al. 2002, p. 423). I shall in the Research results section of both the first and second paper discuss whether the CRM system had the "power altering" quality and what effect it may have had on the equilibrium in the case organization. The teleological construct of change - that is, change proceeds toward a goal and is driven by purposeful and adaptive individuals - advanced by Van de Ven and Poole (1995), has been used in many earlier studies (Huy 2001) and therefore I, too decided to use their definitions of process, change and entity. Furthermore, in line with the definition of a development process, I propose that the implementation process of a CRM system is a change process, too.

3. Research approach

Every researcher has his/her own personal motivation to perform a particular scientific study. My personal background is both an entrepreneurial and an academic one. During the last twenty years I have been a partner and a management consultant/project manager in two privately held IT consultancy companies. At the same time, I have beside my work in business life been advancing my academic career. After having in the early eighties completed my Masters degree in Information Systems, I continued my research work and completed my Licentiate thesis in 1995. Ever since then I have shared my working time between research work and management consultancy. Gummesson (2000, p. 8) defines management consultants as "consultants, who have been brought into a company to work on problems that concern the management of the whole company or its different functions". My consultation activities have focused on the marketing function of various firms. This dissertation is based on three of my most recent research papers. My motivation to conduct this scientific study in the topic area of CRM success is grounded on my personal experience and observations as a management consultant in marketing and IT in more than one hundred real-life CRM implementation projects.

According to Yin (1989, p. 17) different research situations offer the opportunity to apply different research strategies. Furthermore, each strategy has advantages and disadvantages, depending on three conditions: the type of research question, the control an investigator has over actual behavioural events and the focus on contemporary as opposed to historical phenomena. In the first and second paper I have investigated the research questions in two separate single case settings. In the third paper the conceptual analytical method was chosen in order to more broadly illustrate the nature and qualities of the human being in the context of CRM. I argue that a conceptual analytical approach helped to analyze the image of the human being in CRM more critically (Walsham 2005; Richardson and Howcroft 2006; Richardson and Robinson 2007) with no particular stance like a managerial or a socio-technical one. The research questions in papers 1 and 2 have been chosen to potentially afford better understanding of real life events like organizational change. Control over these real life events was not required, nor would it have been possible to administer either. Gummesson has noted that "in using qualitative methods, the borderline between the academic researcher and the management consultant becomes blurred" (Gummesson 2000, p. 2), but the positive side of this position of a researcher/consultant is that "the role of the consultant provides opportunities for intensified inquiry into the behaviour of business firms and other organizations" (Gummesson 2000, p. 2). Furthermore, Gummesson (2000) explicates three specific

challenges, which a researcher may have in a particular research project, namely access to reality, preunderstanding and understanding and quality. By access to reality Gummesson (2000, p. 14) refers to "the opportunities available to find empirical (real-world) data and information". I have as a consultant had a good opportunity for access in business organizations and real-life CRM implementation projects. Therefore my choice for the research approach has been a qualitative one. By the concept preunderstanding Gummesson (2000, p. 15) refers to "people's insight into a specific problem and social environment before they start a research programme or consulting assignment; it is an input. Understanding refers to the insights gained during a programme or assignment; it is an output". I will discuss these and the quality issues in more detail in the section Research results of the respective papers.

Järvinen (2001, p. 10) has introduced a tree-type of taxonomy of research approaches, where the first distinction (Figure 1) has been made between mathematical approaches and approaches studying reality. The class of approaches studying reality has been further divided between research stressing what reality is and research stressing the utility of innovation (or an artefact like a CRM application) including both innovation building approaches and innovation evaluating approaches.

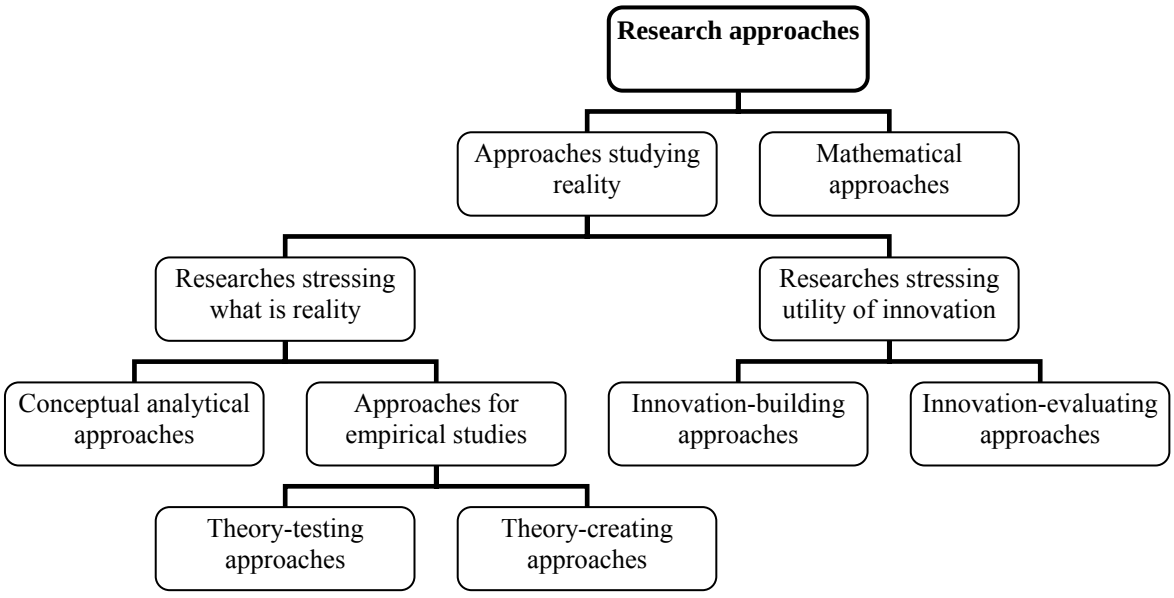

Figure 1. Taxonomy of research approaches (Järvinen 2001)

The class of research stressing what reality is has been further divided between conceptual analytical approaches and approaches for empirical studies including

both theory testing and theory creating approaches. In my first paper the case study research into the phenomenon of change in the CRM implementation context, is a study best categorized as a theory-creating approach. In the second paper I have utilized design science approach and applied action research in conducting the design science research project. This design science research by evaluating the artefact of a CRM application falls into the category of research stressing utility of innovations. In the third paper of the human-centredness in CRM I have applied a conceptual analytical approach. In the next section I shall discuss the issues of validity and reliability of my qualitative research. I shall present the various methods, which I have used in order to increase the overall strength of the inferences and conclusions, which I have based on the empirical data.

3.1 Validity and reliability of qualitative research

Due to the fact that the publishing criteria of the conferences limited the number of pages of my research papers, an extensive discussion on the validity and reliability issues did not get enough space in the original paper. Therefore I shall in this section discuss the issues of quality further. Literature on qualitative data analysis presents various tools and methods to help a researcher in increasing the quality of conclusions in qualitative research. Onwuegbuzie and Leech (2007) present a qualitative legitimation model, where they illustrate various threats to both internal and external credibility of qualitative research. According to Onwuegbuzie and Leech (2007, p. 234) internal credibility can be defined "as the truth value, applicability, consistency, neutrality, dependability and/or credibility of interpretations and conclusions within the underlying setting or group". External credibility again refers to the degree that the findings of a study can be generalized across different populations of persons, settings, contexts and times. According to Onwuegbuzie and Leech (2007) the following threats to internal credibility are pertinent to qualitative research: ironic legitimation, paralogical legitimation, rhizomatic legitimation, voluptuous (i.e., embodied) legitimation, descriptive validity, structural corroboration, theoretical validity, observational bias, researcher bias, reactivity, confirmation bias, illusory correlation, causal error and effect size. Furthermore Onwuegbuzie and Leech (2007) present that the following threats to external credibility are pertinent to qualitative research: catalytic validity, communicative validity, action validity, investigation validity, interpretive validity, evaluative validity, consensual validity, population generalizability, ecological generalizability, temporal generalizability, researcher bias, reactivity, order bias and effect size.

Onwuegbuzie and Leech (2007, p. 239) present that "although there is no method that is guaranteed to yield valid data or trustworthy conclusions, nevertheless, an assessment of procedures used in qualitative studies is imperative for ruling in or

ruling out rival interpretations of data. Such strategies either help to evaluate legitimation or to increase legitimation, or both". Hence the authors present a comprehensive typology and description of methods for assessing the truth value of qualitative research. This list of 24 strategies has been compiled from several researchers. The following techniques are included in the list: prolonged engagement, persistent observation, triangulation, leaving an audit trail, member checking/informant feedback, weighting the evidence, checking for representativeness of sources of data, checking for researcher effects/clarifying researcher bias, making contrasts/comparisons, theoretical sampling, checking the meaning of outliers, using extreme cases, ruling out spurious relations, replicating a finding, referential adequacy, following up surprises, structural relationships, peer debriefing, rich and thick description, the modus operandi approach, assessing rival explanations, negative case analysis, confirmatory data analyses and effect sizes.

Miles and Huberman (1994) have presented some useful questions for a researcher to help in increasing the objectivity, reliability, internal and external validity, and the utilization of the conclusions and research results. Most of the "queries" are presented in the list of 24 strategies by Onwuegbuzie and Leech (2007), too. Based on Miles and Huberman (1994) I have in Table 3 collected essential queries for testing reliability and validity.

Reliability
Do findings show meaningful parallelism across data sources (informants, contexts, times)?
Is the researcher's role and status within the site explicitly described?
Are basic paradigms and analytic constructs clearly specified?
Internal validity
Are the presented data well linked to the categories of prior or emerging theory? Do the measures reflect the constructs in play?
Were the conclusions considered to be accurate by original informants?
Are areas of uncertainty identified?
External validity
Are the characteristics of the original sample of persons, settings, processes fully described enough to permit adequate comparisons with other samples?
Are the findings congruent with, connected to, or confirmatory of prior theory?
Have narrative sequences (plots, histories, stories) been preserved unobscured?

Table 3. Queries for the reliability and validity in qualitative research

I do find it difficult to judge in which particular section of the dissertation it would be most feasible to assess the issues of quality. Finally, I decided to in more detail describe my methods and procedures in analyzing the qualitative data in the Research method section of the respective paper.

3.2 Method and the framework for studying CRM success

In order to illustrate my perspectives on analyzing CRM success I have - based on the literature review presented in earlier sections and especially on findings by Henderson and Venkatraman (1993), Wigand (1997), Rigby et al. (2002), Goodhue et al. (2002), Plakoyiannaki and Tzokas (2002), and Zablah et al. (2004) - constructed a research framework (Figure 2).

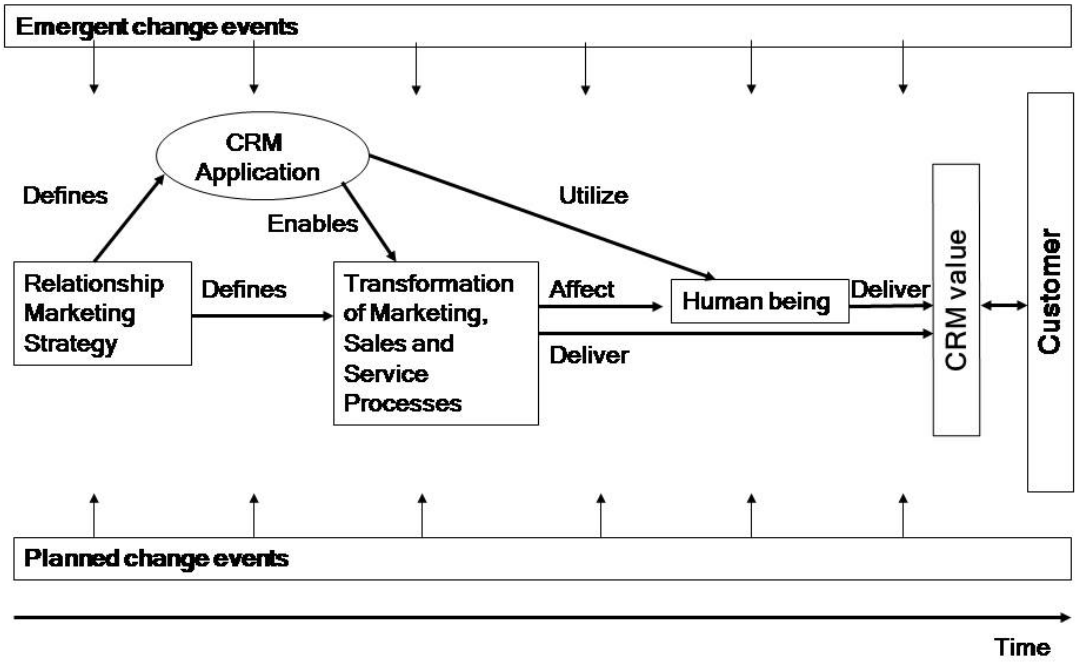

Figure 2. Framework for studying CRM success

Recent CRM literature has introduced various frameworks for studying CRM and CRM success (Payne and Frow 2005; Mendoza, Marius, Pérez and Grimán 2007). Payne and Frow (2005) have developed an extensive conceptual and strategic framework for CRM, where they identify five key cross-functional CRM processes: a strategy development process, a value creation process, a multichannel integration process, an information management process and a performance assessment process. Inherent in their framework is the need to transform the "value creation processes" if the "strategy development process" suggests changes: "the value creation process transforms the outputs of the strategy development process into programmes that

both extract and deliver value" (Payne and Frow 2005, p. 170). However, they do not address the issue of organizational change in more detail, nor do they differentiate emergent vs. planned change. Furthermore, Payne and Frow (2005, p. 167) have from their framework left out human issues. Still, they do emphasize that "CRM can fail when a limited number of employees are committed to the initiative; thus, employee engagement and change management are essential issues in CRM implementation". I shall in my own research framework address these lacking issues, too.

The research framework in Figure 2 has been my leading thread during the whole research process. Each of the articles, which as a whole constitute my dissertation, has mainly focused on one of the entities in this research framework. The framework includes four of the five dimensions of CRM success introduced by Zablah et al. (2004): strategic, process, capability (in terms of the capabilities and qualities of the human being) and technology perspectives. The framework suggests the importance of the alignment of the CRM processes and the relationship marketing strategy and the alignment of the functions of the CRM system with the relationship marketing processes. However, the very CRM value is according to the framework mainly actualized through people – people in their work utilizing the CRM system and carrying the various roles in CRM, like the roles of salespeople, customer service personnel, marketing specialists and managers. In the following sections I shall in more detail explain the background of the constructing of the framework and the inclusion of its entities: the relationship marketing strategy, the transformation of marketing, sales and service processes, the human being, the CRM application and the interconnections between these entities in the aim of producing CRM value for the customer and for the company itself. I shall then use the framework as an aid in positioning the object of the study in each of my research papers and in the Summary section I shall assess the framework in terms of its value in demonstrating issues of CRM success.

3.3 Relationship marketing strategy

Even though some research results (Colgate and Danaher 2000) indicate that relationship marketing strategy does not always pay off if it is not appropriately implemented, many researchers (Ryals and Payne 2001; Wilson et al. 2002; Chen and Popovich 2003; Payne 2006) maintain that a company needs a clear relationship marketing strategy to become customer focused: "successful CRM adoption appears to be associated with high-level support for a customer orientation and relationship marketing philosophy" (Ryals and Payne 2001, p. 17). A traditional customer-acquisition and retention strategy has to be conceived of and implemented before adopting any technological solutions (Rigby et al. 2002). Zablah et al. (2004) have pointed out the importance of strategic issues in CRM success research as well.

Hence, my framework proposes that the existence of a customer oriented relationship marketing strategy is essential for successful CRM.

3.4 Transformation of customer relationship management processes

In order to then successfully implement the relationship marketing strategy, the existing CRM success literature suggests that a company needs to transform its core marketing, sales and customer service processes to become customer focused. As Rigby et al. (2002, p. 103) noted "installing CRM technology before creating a customer-focused organization is perhaps the most dangerous pitfall". Goodhue et al. (2002, p. 82) maintain that "important components for successful CRM are the data infrastructure necessary to make data sharing possible and the organizational transformation necessary for an organization to take full advantage of the CRM capabilities".

Literature suggests that there are various reasons why many transformation efforts may fail. Clemons et al. (1995) introduce two potential risk categories: functionality risk and political risk. According to Clemons et al. (1995) these risks are the result of a conflict among the organization's current strategy, its espoused degree of change, the actually accepted and generally smaller degree of change and the generally larger degree of change that would be in some sense optimal. The authors believe that most firms have at all times two classes of strategy held by personnel within the firm. In style of Argyris (1991), they term them strategy espoused and strategy-in-use. Strategy espoused is the official description of the firm and its future. Strategy-in-use describes what personnel actually believe about the firm and its strategy, about their business unit, and about prospects for the future. Clemons et al. (1995) explicate two principal sources of differences between espoused strategy and strategy-in-use: first defensive routines that cause individuals to avoid potentially painful or embarrassing discussion of critical issues, and secondly organizational tendencies to reward behaviours that have preceded past successes, and may have contributed to or even have directly caused those successes; thus, long after these behaviours have ceased to be productive, individuals may repeat them, and cling to beliefs about their strategic effectiveness.

Even though managers of CRM should lead and execute intentional change, increasingly the feasibility of "managing change" is being questioned (Balogun and Jenkins 2003). According to change management perspective, change is treated as a discrete or continuous (Huy 2001) event to be managed separately from the ongoing process of organizing. Focusing only on change management issues would leave out the issues of change emerging from the unpredictable interaction between IT and its human and organizational users (Markus and Robey 1988). I argue that it is as important to investigate issues of change emerging unpredictably as it is to investigate those that have been planned ahead. I therefore decided to explore the

phenomenon of change in the CRM context on a larger scale than just from the perspective of intentional organizational change of the CRM processes. Hence, I included intentional and emergent as well as internal and external change events in the framework. Furthermore I am interested in how these change events could be managed for the successful outcome of a CRM effort and what their potential effects on humans in the CRM processes would be.

3.5 The human being in CRM

Organizational change in general and the transformation of CRM processes in particular may have various effects on humans such as changes in expectations for competence levels, changes in reward system and changes in distribution of work. Most information systems research takes for granted the assumption that IS practice and associated organizational change can be effectively understood as a process of technical reasoning and acting governed by a mix of concerns about software construction, administrative control and economic gain (Avgerou and McGrath 2007). However, Avgerou and McGrath (2007) maintain that empirical research frequently encounters human activity that is at odds with the assumed pattern of rational behaviour. They explain behaviour in IS and organizational change in terms of social processes rather than as a consideration of rational techniques of professional practice, and they argue that "the rational techniques of IS practice and the power dynamics of an organization and its social context are closely intertwined, requiring each other to be sustained" (Avgerou and McGrath 2007, p. 295).

In their study of CRM success Fjermestad and Romano (2003) maintain that "the key reasons for successful CRM implementations were that the organizations focus on people and iterative, incremental approaches". Organizational members have a tremendous impact on the customer knowledge management process: employees (particularly, boundary spanners like salespeople) possess substantial amounts of knowledge about individual customers and their needs and preferences (Zablah et al. 2004). The ability to harness such intelligence has been linked to the effectiveness of firms' interaction management efforts. The human touch is highly critical to effective interaction management: "employees' ability to leverage their understanding of individual customers and human behaviour often has a substantial impact on the outcome of exchange episodes" (Zablah et al. 2004, p. 483). In successful CRM culture users (salespeople, service personnel) gather and store essential information from crucial interaction episodes with their present and potential customers in order to collect into the CRM database information of customers' needs and wants. For instance, the implicit knowledge, which salespeople possess, can be made more explicit and thus help the organization to better utilize it. This knowledge may help the company in retaining its present customer relationships and enhance their profitability by enabling more targeted and effective cross-selling and up selling activities. I argue that for CRM to be

successful a CRM system should be implemented and used in such a way that the users are empowered, motivated, committed and willing to utilize the CRM system for knowledge management. I have therefore in the CRM success framework included the human being as a core entity, which suggests his/her essential role in the creation of CRM value.

3.6 The CRM application

As an enabler in CRM to the customer-focused processes is the IT artefact - the CRM system - which will be implemented in co-ordination with the transformation of CRM processes, and utilized by organizational actors (sales people, service personnel). CRM can include many applications, performing both analytical and operational functions (Goodhue et al. 2002). On the analytical side, a data warehouse typically maintains historical data that supports generic applications, such as reporting, queries, online analytical processing (OLAP) and data mining, as well as specific applications, such as campaign management, churn analysis, propensity scoring and customer profitability analysis. On the operational side, data must be captured, integrated and stored from all in-bound touch points, including the Web, call centres, stores, field sales and automated teller machines (ATM). In my study the focus is on the operational CRM applications, which support the work of sales and service personnel.

Henderson and Venkatraman (1993) developed a Strategic Alignment Model (see Figure 3), which is defined in terms of four fundamental domains of strategic choice: business strategy, information technology strategy, organizational infrastructure and processes, and information technology infrastructure and processes. Furthermore, the authors introduced two characteristics of strategic management: strategic fit (the interrelationships between external and internal components) and functional integration (integration between business and functional domains). The Strategic Alignment Model identifies the need to specify two types of integration between business and IT domains. The first, termed strategic integration is the link between business strategy and IT strategy reflecting the external components. More specifically, it deals with the capability of IT functionality to both shape and support business strategy. The second type, termed operational integration, deals with the corresponding internal domains, namely, the link between organizational infrastructure and processes and IS infrastructure and processes. In my framework I suggest that the RM strategy defines the CRM application and hence a strategic fit between RM strategy and the IT artefact (the CRM application) would be beneficial for CRM success. Furthermore, the RM strategy is suggested to define the respective RM processes (sales, marketing and customer service) and this again implies a fit between the RM strategy and the RM processes. If this fit does not exist, some form of transformation of the sales, marketing and service processes is needed.

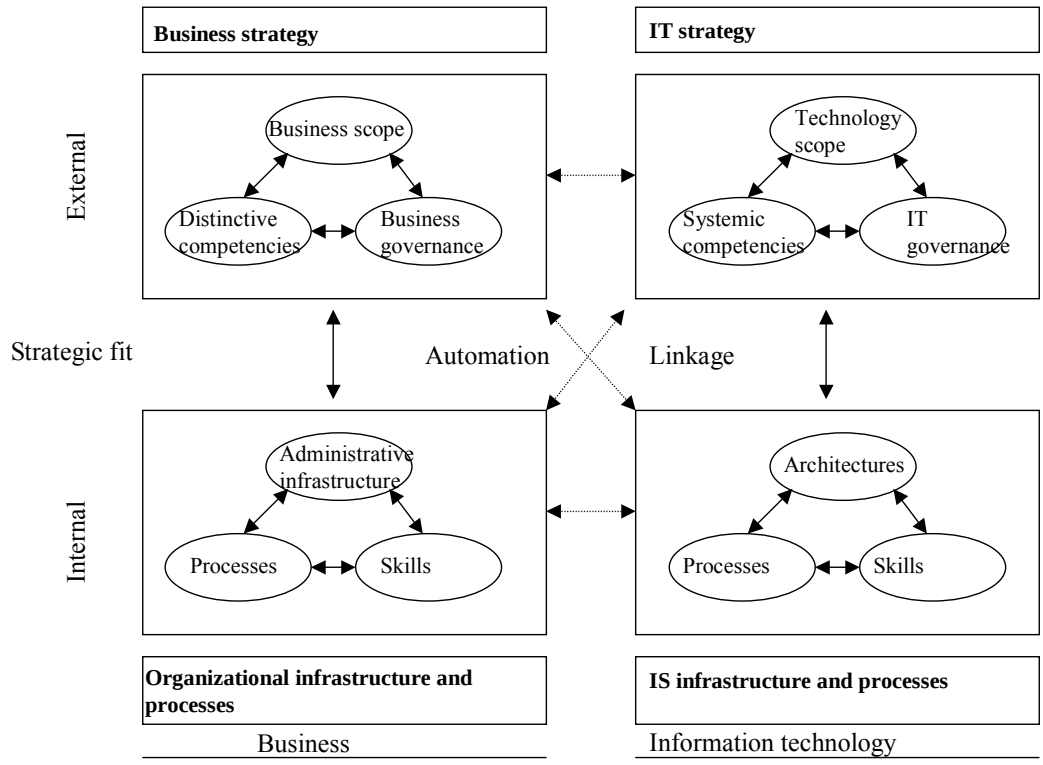

Figure 3. Strategic Alignment Model (Henderson and Venkatraman 1993)

3.7 The CRM value

Customer relationship value can be seen from two perspectives, from the supplier's perspective and from the customer's perspective. In an ideal situation CRM should support value creation for both parties. According to Ravald and Grönroos (1996, p. 22) establishing what value the customer is actually seeking from a firm's offering is a starting point for being able to deliver the correct value-providing benefits. They base their conceptual development on the definition of customer-perceived value as an equation between perceived benefits and perceived sacrifice. Ravald and Grönroos (1996, p. 22) further maintain that "the customer-perceived value of an offering, seen through the eyes of the customer and related to his own value chain, must also be highly situation specific". Essential therefore in understanding value is the observation that value is perceived by customers in their internal processes and in interactions with suppliers or service providers when consuming or making use of services, goods, information, personal contacts, recovery and other elements of

ongoing relationships (Grönroos 2000). Ravald and Grönroos (1996) point out that it is also interesting to examine how a company can add value to the offering by reducing the customer-perceived sacrifice. In order to be able to reduce the customer perceived sacrifice, the company needs a thorough understanding of the customer's value chain. The company has to get close to the customer to be able to understand his needs, preferences and all activities, which constitute his value chain.

In the context of a customer relationship the issue is not what kind of an offering the company provides - rather it is what kind of relationship the company is capable of maintaining (Ravald and Grönroos, 1996). Therefore, Ravald and Grönroos (1996, p. 23) introduce the concept "total episode value", which is described as a division of the sum of episode and relationship benefits by the sum of episode and relationship sacrifice. A poor episode value can be balanced by a positive perception of the relationship as a whole. However, when focusing on the value of a relationship, the authors maintain that "the customer perceived value needs to get a deeper understanding, a deeper meaning – a meaning which does not relate only to episodes, but to the expectations of the customer and the responsibility of the company to meet these expectations in a long-term relationship. Then the customer perceived value can be increased on an episode level as well as on a relationship level" (Ravald and Grönroos 1996, p. 25). As a conclusion and an avenue for further research Ravald and Grönroos (1996, p. 28) suggest that "to get an in-depth understanding of customer-perceived value in a relationship marketing setting one needs to study customer's perceptions of value empirically on an episode level as well as on a relationship level".

The value the supplier organization receives from the customer is the outcome of providing and delivering of superior value for the customer, deploying improved acquisition and retention strategies and utilizing effective channel management (Payne 2006). According to Payne (2006) fundamental to the received customer value from the supplier's perspective is first, determining how existing and potential customer profitability varies across different customers and customer segments. Second, it is important to understand the economics of customer acquisition and customer retention and opportunity for cross-selling, up selling and building customer advocacy. Achieving the ideal equilibrium between giving value to customers and getting value from customers is a critical component of CRM and requires competence in managing the perception and projection of value within the reality of acquisition and retention economics (Payne 2006).

I have included the CRM value entity in my research framework attached to the human being entity and customer entity because, as I quoted earlier, the human touch is highly critical to effective interaction management: "employees' ability to leverage their understanding of individual customers and human behaviour often has a substantial impact on the outcome of exchange episodes" (Zablah et al. 2004, p. 483). Another motivation to bring to the fore the human being entity is the observation that value is created by elements in singular episodes or service encounters as well as by perceptions of the relationship itself (Grönroos 2000). Furthermore, according to Grönroos (2000) relationship benefits may be feeling of trust in a supplier or service provider, or social (and technical bonds) that have been established between parties (interpersonally). The service episodes and the

perceptions are actualized in real life personal interactions. I therefore exclude from my investigation the interactive digital networks (Puhakainen 2003), where the customer is not typically interacting with a human being from the supplier or service provider organization in real time.

4. Presentation of the research papers

In this section I shall present each of my three research papers. When presenting the paper, my aim is to illustrate how the research questions and results in the respective paper relate to my overall research framework (Figure 2). In order to clarify this relation, I shall first introduce the research problem of each of the papers. Thereafter I shall explain the research method and finally the results of the research presented in the respective paper. I shall explain how the results of one research lead me in the research process to focus on the problems presented and investigated in the following paper. In this way the process nature of my dissertation is highlighted, too.

I have co-authored the third paper together with Docent Hannakaisa Isomäki, and therefore I would like to clarify my part in this publication: we have together co-authored the research setting, motivation for the research as well as the research questions; the analysis of what is the image of the human being in the context of CRM has been co-authored, too; Hannakaisa Isomäki's individual contribution has been the formulation and construction of the framework for a holistic view of people; my individual contribution has been both the analysis of how the role and activities of the human being appear as success factor in CRM, and by applying the framework for a holistic view of people, the final analysis of how the human qualities are presented in the earlier research on CRM success.

4.1 Research Paper 1: Wikström, C-E., A case study of emergent and intentional organizational change: Some implications for customer relationship management success. Published in the Proceedings of the HICSS37 (Hawaii International Conference on System Sciences), January 2004, pp. 1-10, (Conference Proceedings, copyright by IEEE Computer Society).

4.1.1 Research problem

In this paper the focus of my investigation is on the phenomenon of organizational change and its potential effects on CRM success. The challenge of managing organizational change has been raised as a potential factor affecting the successful outcome of CRM efforts. However, focusing only on intentional change and change management issues would leave out issues of change emerging from the unpredictable interaction between IT and its human and organizational users. Managers, who are trying to lead the CRM process to a successful end, might not be alerted by potential risks prevailing in emergent and unintentional change events. In this paper my research aim is at raising awareness of potential CRM success risks related to organizational change issues. From the perspective of scientific research interest I in this study broaden the existing research approach to CRM change (Goodhue et al. 2002, Rigby et. al 2002), which typically only emphasizes intentional transformation, to focusing on events of emergent and unintentional change, too. My argument is that the proposed relationship between CRM success and organizational change should be made more explicit in order to thoroughly investigate this challenge. The research questions in this paper are: what types of organizational change events - both intentional and emergent - may occur in a CRM implementation? How in practice have these change events been managed in the case company? How did the case company succeed in their transformation process? Can we learn something from the way the change events were managed? Can some of the findings be generalized?

4.1.2 Research method

I chose to investigate the phenomenon of change qualitatively and conducted a single case study. I selected one case company for a thorough investigation. Instead of selecting a more positivist research method, I believed that an exploratory approach helps to bring about factors of change that otherwise might not have been revealed. Inspired by Markus and Robey (1988) I chose to observe both planned and emergent change events, and analyzed the change phenomenon at three levels: environmental (markets, competition, societal issues like legislation), organizational and individual level.

Before entering the field I first constructed a research protocol. I then chose to focus on gathering data of organizational change events related to both the project of the CRM application implementation, and the process of implementing relationship marketing strategy. I used various methods and sources for data gathering. I conducted person-to-person interviews and interviewed:

- members of the business management (chief executive officer (CEO), business unit manager (BU manager)),

- members of the sales organization (salespeople, sales assistant),
- IT experts (CRM project manager, chief information officer (CIO), project manager of the CRM software vendor).

I used the following documents:

- annual company reports,
- process descriptions,
- CRM project requirements definition reports,
- minutes of the CRM implementation project steering group meetings
- my own field notes.

I interviewed persons asking mostly questions related to the phenomenon of change. I followed the logic of first asking an open-ended question "Have you experienced any changes during the CRM systems implementation project?" If the answer was "yes", I followed on by asking some clarification with more detailed questions like "Would you please describe in more detail the changes on the individual level, which you mentioned you have experienced". All interviews were conducted during the period of December 2002 and September 2003. They were transcribed, too. A total of 12 interviews were conducted comprising of 7 original interviews with different individuals and 5 rechecking sessions. Each interview lasted from 30 to 120 minutes.

In the analysis of the empirical data the definitions of process, change events and entity from Van de Ven & Poole (1995) were operationalized. The sequences of events after the data gathering and in the analysis process were the following: first, I used my framework in Figure 2. in order to connect all the different change events found in the material to the respective entities in the framework. An example of an answer, which lead me in this analysis to locate a change event is "Well, in the situation in the autumn of the year 2000, and in the winter of the year 2001, you could see that the big things were over, and now you had to sort of turn around the whole sales organization from being a recruiting organization, which just needed to recruit more IT experts, to become a customer-oriented sales organization working on the front-line". These types of answers lead me to categorize this particular change event to be emergent by its nature and belonging to both process and individual entities in the research framework.

Second, I arranged the observed change events of these entities into chronological order, and located them on some of the observational levels (environmental, organizational and individual). An example of the answers by some interviewees and the inference I made is given in the Table 5. I have in the section Research approach described my personal research interest and my role as both an entrepreneur/consultant and as a researcher. In the case described in this research paper my role was to act as the representative in the project steering group of the software vendor company. All study data comprising of as well transcriptions of recorded interviews as the original recordings, research protocol, field notes,

minutes of CRM project meetings, and documents containing the financial data/data of the company strategies are available and have been retained.

In the following tables (Table 4-6) I shall in more detail demonstrate how I have taken into account the various quality issues explicated in Table 3.

Quality item	**Description of methods and procedures used in analyzing the qualitative data**
Reliability	
Do findings show meaningful parallelism across data sources (informants, contexts, times)?	In order to be able to distinguish minor from major change entities I compared the answers of different individuals, and when I could identify two or more of the interviewees having mentioned the same change entity, I interpreted it as a major change event and listed it in the table.
Is the researcher's role and status within the site explicitly described?	In the particular case described in this research paper my role was to act as the representative in the project steering group of the software vendor company.
Are basic paradigms and analytic constructs clearly specified?	The constructs relationship marketing, customer relationship management, CRM success, and organizational change have been explicitly defined in the paper. An analytical framework has been constructed, where these constructs and the constructs of relationship marketing strategy, RM processes, the human being, and the CRM application, as well as their tentative relationships have been illustrated. However, as a limitation the construct CRM value from the customer's perspective has not been clearly defined.
Internal validity	
Are the presented data well linked to the categories of prior or emerging theory? Do the measures reflect the constructs in play?	I have in Table 5 demonstrated the link between the entities of the construct change and the dimensions planned or emergent as well as the level of observation (individual, organizational, environmental) by positioning the respective and exemplary interviewee quotation in the intersection of (rows of quotations and columns of entities of a construct) the dimensions of the respective construct.
Were the conclusions considered to be accurate by original informants?	The transcribed interviews were sent to every individual for getting feedback on accuracy. However, the informants did not find any major inaccuracies.
Are areas of uncertainty identified?	I as a researcher do recognize that some of the interviewees responded as if a change event (the actual level of transformation of the planned processes) would have been more evident and clear than it apparently in practice had been (the processes had not been transformed to the extent as some of the interviewees led the researcher to understand). This inference supports the notion of Clemons et al. (1995) that also in this case some of the interviewees' responses referred to the "espoused strategy" i.e., as if transformations would have been actualized to a greater extent than they then in practice had took place (strategy-in-use). An evidence of this appears in the interview of the CRM vendor's project manager (see Table 5).
External validity	
Are the characteristics of the original sample of persons, settings, processes fully described enough to permit adequate comparisons with other samples?	The characteristics of the sample persons have been noted above. The setting of the CRM project, as well as the sequence of events have been demonstrated by the chronological listing of the documents in Table 6, as well as the chronological listing of the interview transcriptions.
Are the findings congruent with, connected to, or confirmatory of prior theory?	The findings have been related to the theory of change as depicted in the Table 5, as well as to the theory of CRM through utilizing the research framework (Figure 2).
Have narrative sequences (plots, histories, stories) been preserved unobscured?	Some narratives have been as direct transcriptions copied in Table 5.

Table 4. Quality dimensions of Paper 1

Source of evidence		**Observational level and type of change event**		
Interviewee or document	*Citation*	*Environmental change event (emergent or planned)*	*Organizational change event (emergent or planned)*	*Individual change event (emergent or planned)*
		Year 2000 phenomenon	**Firm mergers and merging of different company cultures**	**Change in job descriptions**
BU manager, 12.12.2002	"…one had to - in a way - turn the focus of our sales organization from that of recruiting to be at the customer front end…".	Planned		
BU manager, 12.12.2002	"Several company acquisitions took place at that time when we completed the preliminary mapping of our needs for new systems development…various business cultures had been developing in the acquired firms due to their long history… one could say that a "chaos" prevailed at that time due to various systems… it was a fruitful opportunity for us to start building something new…".		Planned	
CEO, 21.3.2003	"I think that the sales job is going to get restructured to a more detailed level, in a different way than it used to be…".			Planned
BU manager, 12.12.2002	"…at that time, you did not sell here anything, what you did was you took in orders and tried to "with cats and dogs" find more people to be recruited…".			Planned
		Finland joining EMU caused increase in demand for IT services	**Change of business strategy to become customer-focused**	**New distribution of tasks**
BU manager, 12.12.2002	"Well, in that situation in the Autumn of year 2000 and in the winter of 2001 one could see that the "Big things" were already over".	Emergent		
BU manager, 12.12.2002	"…we are in the midst of reorganizing the whole sales organization in parallel with the information systems renewal…we are moving from an old-fashioned order taker organization to become little more dynamic and be working at the customer front-end in other words "we shall go out from our cottages""!		Planned	
BU manager, 12.12.2002	"…salespeople do not anymore manage recruiting of IT professionals, their main task now is selling… they have been divided into various business units and therein salespeople have been given the responsibility of certain customers and customer segments…".			Planned
CRM project manager, 12.12.2002	"One remarkable change in distribution of tasks is the fact that formerly salespeople recruited new IT contract workers, too. Now, in the new model recruiting has been separated and salespeople only concentrate on selling…".			Planned
CRM project manager, 12.12.2002	"CRM system will force a redistribution of the tasks, which formerly had been executed by the sales assistant alone… they (storing of sales activities) will now be distributed between salespeople and the sales assistant…".			Planned
Sales assistant, 14.3.2003	"Formerly contracts were written by me based on sales order information forms, which salespeople filled up and handed over to me. Now, I can find the information of a closed sales order directly in the CRM system by just opening the respective customer form…".			Planned
		Intensified competition by foreign companies	**New product/service portfolio was developed**	**Increase in turnover of salespeople**
BU manager,	"…you could say that in this respect the whole			Emergent

Source of evidence		**Observational level and type of change event**		
Interviewee or document	*Citation*	*Environmental change event (emergent or planned)*	*Organizational change event (emergent or planned)*	*Individual change event (emergent or planned)*
12.12.2002	sales force is going to divide into two parts…the first part will understand quickly the new way of doing things (working with customers "at the front end") in contrast to the second part, who is in a way going to go through an inner "Jacob wrestling with the angel" about whether to change their behaviour or not" .."let's say 70% has internalized the new way of working… a couple of salespeople on the other hand have got a 6 months target and if the target is not met, the consequences are evident…".			
BU manager, 12.12.2002	"The competitive environment regarding contract work services is intensifying all the time…foreign service companies have entered the Finnish market…".	Emergent		
CEO, 21.3.2003	"…the market situation being as it is at the moment…" "…we just have to increase the volume from an existing account… we must try to offer services on a broader scale…new services to the old customer…".	Emergent	Planned	
BU manager, 12.12.2002	"…we want to take more risk and increase our responsibility in completing these projects… as under contractors, as project work and by outsourcing…".		Planned	
CRM project manager, 12.12.2002	"Our product portfolio is going to expand, from contract work services we go towards outsourcing and we shall take over whole development projects…".		Planned	
			New incentive programme was introduced	**Demand for new competencies**
BU manager, 12.12.2002	"Formerly the bonus on top of the base salary was mainly calculated from the turnover, which a salesman could generate, that is if you had got good customer relationships, which generated steady work load, you had secured a certain base for you… it did not necessarily motivate you to work more at the customer front-end. Now, we change the system to reward on closing more sales".		Planned	
BU manager, 12.12.2002	"…we want to take more responsibility in the customer relationship…this means that we want to offer more than just contract work services, we shall take on more responsibility and risk by acting as under contractors, offering total projects and offering outsourcing services, too".			Emergent
CRM project manager, 12.12.2002	"Demand for new competencies will increase, the understanding of the functions and techniques, also you must understand these when writing quotes… you must understand what their meaning is on the pricing components…".			Emergent
			Turnover of members of top management	
BU manager, 12.12.2002	"…then this transformation has speeded up by the fact that now in the management of Tieto-X there is nobody in our operative management from the old organization…the management has during the last two years changed totally…"		Emergent	

Source of evidence		**Observational level and type of change event**		
Interviewee or document	*Citation*	*Environmental change event (emergent or planned)*	*Organizational change event (emergent or planned)*	*Individual change event (emergent or planned)*
			CRM implementation	
BU manager, 12.12.2002	"Interviewer: this was a decision made by the top management… in a way strategic decision to start developing this customer management system, was it? Interviewee: yes, it was".		Planned	
CEO, 21.3.2003	"We organized the CRM project group to prepare for the project. They then came to me with a complete project plan and proposal… this had been my wish, too…it went juts like planned…".		Planned	
CRM project manager, 12.12.2002	"Management started the systems renewal project based on the results of an analysis of the state of present applications". "We realized that the company was growing and at the same time data was dispersed in various small independent systems like Office…".		Planned	
Evidence of strategy-in-use vs. espoused strategy:				
CRM software vendor's project manager, June 2003	Interviewer: "How did the BU manager prepare users?" Interviewee: "Difficult to get information of how things are going…when I ask him always everything is fine… process descriptions were good, but how they have been in practice affected salespeople's doing, is a question…".			
CRM software vendor's project manager, June 2003	"Salespeople had to enter same data as before in Excel in a certain way and follow-up by the pipeline reporting, bonus plan… salespeople felt pressure; Sales assistant should have left papers and Excel and start using CRM, but is still is a problem… when I was visiting her place I saw that she always had printed everything from CRM and still updated everything thereafter on paper printouts, still not using directly the system…"			

Table 5. Interview data of Paper 1

Document name	**Date**	**Document information used in the data analysis**
Request for quotation of the new CRM system	28.5.2002	Initial requirements for the CRM system. Company background information.
Preliminary requirements definition document	28.2.2002	Detailed requirements definition for the new CRM system. Process descriptions of the core sales processes.
Minutes of the steering group meeting	30.9.2002	customer's main requirements for the new CRM were fixed: CRM should include a "total view of a customer" as a Windows screen view , which should include actual sales, sales forecast, open projects and activities per customer segment CRM should enable the storing of data of every sales activity taking place at the "customer frontline" CRM should be able to store and maintain the information of the stage of each sales process as a "pipeline" description the data in the human relations management system should be made available for the

Document name	Date	Document information used in the data analysis
		users of the CRM system, too technically the usability level of the CRM system should be 100%; the salespeople should be motivated to use the system; it should give added value to the salespeople and to the management as well implementation schedule was fixed: production use start-up 1.1.2003 user training December, 2002 data conversions completed by December, 2002 tailoring completed by November, 2002 requirements definitions of the tailoring completed by October, 2002.
Minutes of the steering group meeting	31.10.2002	main topics and decisions made: requirements definitions of the tailoring were accepted initial implementation schedule unchanged
Minutes of the steering group meeting	26.11.2002	main topics and decisions made: tailoring was almost completed, new review of finalized versions was scheduled early December, 2002 pipeline report was redefined training was scheduled for December, 2002 as planned earlier installation was completed successfully
Minutes of the steering group meeting	7.1.2003	main topics and decisions made: training of December, 2002 was arranged as planned; the group evaluated its success some challenges due to the completed conversion of customer data from the legacy system was discussed: the requirement of a "total view of a customer" was in danger due to the fact that the customer data in the old system was dispersed and divided into several customer records holding sub-account identifiers; hence the corporate level data was technically difficult to gather together in one view some errors in the programme were encountered in tests; new version was scheduled to be installed before January. 2003 training
Minutes of the steering group meeting	23.1.2003	main topics and decisions made: 2 of the five errors had been cleared up; 3 were left to be fixed by late January, 2003 customer data conversion created the problem of multiple customer records in CRM, this was extensively discussed and a new method to minimize the negative effects to the gaining of a "total view of a customer" was agreed upon pipeline report logic was refined again some modification in the CRM programme were suggested
Minutes of the steering group meeting	6.2.2003	main topics and decisions made: customer accepted the CRM project as finalized according to the project plan
Tieto-X annual report 2000	31.12.2000	Financial data of the actual figures of the year 2000, forecast for the year 2001, company strategy, visions for the future.
Tieto-X annual report 2001	31.12.2001	Financial data of the actual figures of the year 2001, forecast for the year 2002, company strategy, visions for the future.
Tieto-X quarterly report 2002	28.10.2002	Financial data of the actual figures of the year 2002 ranging 1.1.-30.9.2002, forecast for the year end 2002, company strategy, visions for the future.
Tieto-X quarterly report 2003	12.8.2003	Financial data of the actual figures of the year 2003 ranging 1.1.-30.6.2002, forecast for the year end 2003, company strategy, visions for the future.

Table 6. Document data of Paper 1

4.1.3 Research results

My main finding in this case study is that to merely look at a single event e.g., that of the CRM system implementation process, is too narrow a view. As totally new contributions to CRM success research I have in this paper identified several change events on different observational levels, which have not been introduced in earlier CRM success research. For the practitioners my findings suggest that to succeed in

CRM, one should first identify both emergent and planned change processes. Then one could evaluate, whether change events - triggered by these processes - might affect one another in a way which could endanger the successful CRM implementation outcome. My research results show that in the case organization the management had made a decision to change the company's business strategy from product/service-oriented to a customer-oriented one. This finding offers support to my framework and to the results of earlier studies, which indicate that in order to succeed a company should first change its strategy to become customer-focused before implementing a CRM system. In this study the case company succeeded to a certain extent in achieving a fit between the RM strategy and the RM processes (Henderson and Venkatraman 1993). However, the change of strategy had major effects on the RM processes.

The company had identified the key business processes related to sales and customer relationship management. One way of managing the change of processes was the introduction of new incentives. Another key element was the implementation of the new CRM application. All these changes culminated in changes in employees' job descriptions and distribution of daily tasks anew. The case company did succeed in transforming the organization and the processes to become customer-oriented. My findings give support to my overall framework that to succeed in a CRM effort, one should also change the processes to produce CRM value - at the same time there is an effect on the individuals in terms of changes in job descriptions and distribution of tasks. The CRM system was, in the case company, an enabler to the new approach to manage sales activities and other transactions on the customer frontline.

Another new finding in this paper is the identification of various emergent factors – among other things the decline in demand for services and the intensifying competition – which were major agents for more change processes and which also created more risks to successful CRM. I argue that if an emergent change event like top management turnover had caused the project leader of the CRM implementation project to leave the company; this might have endangered the success of the CRM project accordingly. The effect of changes in competitive position (emergent environmental change event) to the need for change in product portfolio (planned organizational event) might have been another emergent change event potentially affecting successful CRM. I have in this study shown that if one tries to manage change, one should first identify the change events, which are "manageable" in the first place. One should understand that at the same time as one is trying to manage planned change of selected CRM entities, there are ongoing emergent change processes. These processes might have consequences, which affect the events being "managed". Earlier literature on the effects of change for CRM success and various frameworks for studying the CRM process (Payne and Frow 2005; Henderson and Venkatraman 1993) and strategy have focused more on planned change, or the issue of change has not been dealt with at all. I have shown that there is a research gap in the literature: it does not in the context of CRM discuss emergent change issues.

4.2 Research Paper 2: Wikström, C-E., A design science approach to investigating the piloting of customer relationship management, Proceedings of the 2006 Information Resources Management Association International Conference, 2006, pp. 212-215.

4.2.1 Research problem

The results in the earlier research paper indicated that companies should draw more attention to emergent change events, which may increase risk in CRM implementations. From a managerial perspective it has been suggested that one avenue of reducing risk would be to apply piloting (Gentle 2002; Markus 2004; Payne 2006) before investing in the final CRM project. From the research interest perspective I have in this paper applied a scientific research approach – that of design science – in investigating the piloting of CRM. This is a new research approach in the field of CRM. Piloting has been a method suggested by management consultants, but its relevance in reducing CRM risks has not been shown scientifically. In this empirical research I investigate whether the piloting of CRM has a role in decreasing implementation risks. Related to the overall CRM research framework, my research here focuses on the IT artefact, the CRM application and the potential implications of its organizational implementation in a piloting project. However, as piloting involves innovation and testing of this innovation with people, i.e. with its potential users, this research paper is also related to the human centred issues in my framework. The goal of reducing risk of failure may be for a company the main motivation to rely on piloting, but there might be other motivations: the fear for resistance, the need for gaining organizational commitment and the uncertainty which surrounds the whole concept of CRM. My research questions here are: why do companies adopt piloting before a CRM implementation project and what are their primary expectations? What is the outcome of piloting and to what extent may piloting reduce CRM implementation risks?

4.2.2 Research method

In order to gain insight into the phenomenon of piloting CRM, I here used design research in analyzing the data collected from one case company. Design research

involves the analysis of the use and performance of designed artefacts to understand, explain and very frequently to improve on the behaviour of aspects of information systems (Vaishnavi and Kuechler 2007). Gregor and Jones examine how Information Systems Design Theories (ISDTs) can be formulated and note that "Information Systems as a discipline is concerned with action - the design, construction and use of software and systems involving people, technology, organizations and societies. In acting in building information systems it is preferable not to approach every new development problem afresh. We would like at least some guiding knowledge that transfers from one situation in which action is taken to another. Generalized knowledge of this type can be referred to as design theory" (Gregor and Jones 2004, p. 83). Furthermore, Gregor and Jones (2007) pay attention to specifying design theory and identify eight separate components of design theories: (1) purpose and scope, (2) constructs, (3) principles of form and function, (4) artefact mutability, (5) testable propositions, (6) justificatory knowledge (kernel theories), (7) principles of implementation and (8) an expository instantiation. Gregor and Jones (2007, p. 321) point out the human understanding of artefacts: "Human beings conceptualize and describe artefacts in abstract, general terms. Human beings create theories and constructs and use them to guide the building of instantiations in the real world and also to understand the material artefacts when in use. In addition, design principles and theory can be extracted from observation and inference from already instantiated artefacts".

I have applied the methodology of design research introduced by Vaishnavi and Kuechler (2007). I selected one case company for my study on the basis that I had the opportunity to conduct participatory research and act in the piloting as both researcher and consultant. In line with the notion above about the human understanding of artefacts, my study focused on how in the case company the human beings (salespeople, sales executives) understood the material artefact, a CRM prototype and on the other hand "what observations and inferences" were produced from an already "instantiated" CRM prototype. Based on my research framework and the results of my earlier research paper above, my perspective in this piloting study was that before embarking in the CRM effort, the case company first needed to align customer relationship management strategy with sales, marketing and service processes before implementing a CRM application or even piloting it. Therefore my first purposeful intervention was the proposition to define all major sales, marketing and customer service processes. My second intervention was the sending of some academic and managerial literature on both CRM risk issues and CRM opportunities to members of the piloting group. The scope of the piloting project included the construction of a CRM system prototype, in which the customization features of Microsoft's CRM programme were utilized. Altogether three customization cycles were executed. The prototype resembled a programmed façade, but it was a fully functional customized version of the Microsoft CRM application, which could be further cycled through iterative phases until full functionality for production use would be achieved.

Before entering the field I first constructed a research protocol. In the interviews I used a list of semi-structured questions, e.g., "Why did your company adopt

prototyping before a CRM implementation project?" This question was followed by more detailed questions like:

- Tell me first about your personal background and position within the company?
- What were your expectations of the piloting?
- What is your perception of the piloting process?
- What is your perception of the outcome of the piloting project?
- Did the results meet your expectations?
- Were there any unexpected results?
- Did the piloting help in making a decision about the final CRM implementation?

I conducted person-to-person interviews and interviewed:

- members of the business management (CEO, business unit manager),
- IT experts (CRM project manager, CIO, project manager of the CRM software vendor).

I used the following documents:

- annual company reports,
- process descriptions created as a result of the piloting project group meetings,
- CRM project requirements definition reports created as a result of the piloting project group meetings,
- minutes of the CRM piloting project steering group meetings,
- my own field notes,
- the CRM prototype and its documentation.

The sequence of events of the data gathering procedure as well as the analysis process have been described in chronological order in the Table 8. All study data comprising of as well the transcriptions of the recorded interviews as the original recordings, the research protocol, my side note documents, the minutes of the CRM requirements and definitions meetings are retained. The documents are listed in the Table 8. Next (in Table 7) I shall in more detail demonstrate how I have in this study taken into account the various quality issues explicated in Table 3.

Quality item	**Description of methods and procedures used in analyzing the qualitative data**
Reliability	
Do findings show meaningful parallelism across data sources (informants, contexts and times)?	In the analysis of the data I have, in order to be able to distinguish minor from major topics, compared the answers of different interviewees, and when I could identify two or more of the interviewees having mentioned the same topic, I interpreted it as a major one and reported it in the research results and in the Table 8.
Is the researcher's role and status within the site explicitly described?	In the case described in this research paper my role was to act as a business consultant. I was commissioned to consult the case company in the CRM requirements definition,

	CRM process descriptions as well as in the prototyping and piloting of the CRM application. I was personally involved in the whole piloting process and was in the position to co-create and co-work with the members of F-Bank piloting group. I have in the research paper reported my two essential, purposeful interventions: the suggestion of defining and describing the processes and the sending of some research literature of CRM success.
Are basic paradigms and analytic constructs clearly specified?	I have explicitly described the design research methodology, which I have applied as well as the constructs thereof.
Internal validity	
Are the presented data well linked to the categories of prior or emerging theory? Do the measures reflect the constructs in play?	I have reported the research results directly linked to the entities in the design theoretical research methodology and followed the reasoning in the design cycle: awareness of problem, suggestion for a solution, development of a prototype, evaluation of the prototype and conclusion.
Were the conclusions considered to be accurate by original informants?	The transcribed interviews were sent to every individual for getting feedback on accuracy. However, informants did not find any major inaccuracies.
Are areas of uncertainty identified?	As a researcher I do recognize that when some of the interviewees responded that it was important to describe the customer processes first, this might have reflected my purposeful interventions mentioned above, but this is in line with the very nature of action research: "…action research simultaneously assists in practical problem solving and expands scientific knowledge as well as enhances the competence of the respective actors…" (Järvinen 2001, p. 116).
External validity	
Are the characteristics of the original sample of persons, settings, processes fully described enough to permit adequate comparisons with other samples?	The characteristics of the sample persons have been noted above. The setting of the CRM piloting project, as well as the sequence of events have been demonstrated by the chronological listing of the documents and workshops in Table 8, as well as the chronological listing of the interview transcriptions.
Are the findings congruent with, connected to, or confirmatory of prior theory?	The findings have been related to the design theory methodology (Vaishnavi and Kuechler 2007) and to the theory of CRM through utilizing the research framework (Figure 2).
Have narrative sequences (plots, histories, stories) been preserved unobscured?	Some narratives have been copied as direct transcriptions in Table 8.

Table 7. Quality dimensions of Paper 2

Date	**Piloting project task**	**Description**
1.3.2005	Project kick-off meeting with project group members and the CEO plus the CIO	The acceptance of the piloting project plan.
28.3.2005	Requirements definition, project group meeting with customer service business unit	
29.3.2005	Requirements definition, project group meeting with capital markets business unit	
31.3.2005	Requirements definition, project group meeting with marketing department	
1.4.2005	Requirements definition, project group meeting with private banking business unit	
6.4.2005	Requirements definition, project group meeting with institutional asset management business unit	
19.4.2005	Requirements definition, project group meeting with corporate finance business unit	
27.4.2005	Steering group meeting with	The mid-report was presented and the results of the requirement definitions

	CEO, CIO and CRM project manager	(these included the presentation of the identified sales processes of each BU, but not yet their detailed descriptions); the decision to continue to the actual constructing of a CRM prototype programme based on the definitions was made.
16.5.2005	First CRM prototype and evaluation	Prototype version 1 was constructed by vendor's project manager and evaluated by F-Bank's project manager.
17.5.2005	The process description workshop of the customer service BU	
24.5.2005	The process description workshop of the capital markets BU	
26.5.2005	The process description workshop of the institutional asset management BU	
27.5.2005	Second CRM prototype	Prototype version 2 was constructed by vendor's project manager.
6.6.2005	Evaluation of CRM prototype 2 by F-Bank's project manager	Some minor changes were made to the prototype version 2 and the last version 3 was constructed.
15.6.2005	The CRM prototype and the final report of the piloting project was presented to the steering group	The group included the CEO, CIO and BU managers as well as F-Bank's project manager.

Interview date	**Interviewee**	**Examples of narratives in data, which have lent support to the analysis of the research findings**
9.8.2005	CEO of F-Bank	Background: "We had three separate systems, we had "Vinyeard", "Cliento" and then "Outlook", which naturally presented a personal, CRM type of a basic module… and we thought that we would need a new system, which would merge all these three old systems successfully and that was the starting idea, and it then turned out during the piloting to have been a wrong idea, as we here at the bank did not actually understand what CRM was all about… I believe that almost everybody here had a wrong picture of what CRM actually is and means… now we understand CRM better as a programme to manage the various processes, as a tool to support customer acquisition process…this understanding we did not have but we expected something else…therefore the novel outcome of the prototyping was the description of the processes… without this piloting we would not have found a common understanding or got a unified expectation for this whole project…".
		"I was suggested that this is the way we should go (by first doing some piloting) in order to get more understanding, and… we have before had so many "false starts" about acquiring a CRM so now we thought that we'll do it in the rights way…".
		Outcome: "… (The formal description of the processes) this is only a new way of doing it (selling) and perhaps this will transfer a little bit the (selling) competence from individuals to the organization itself and therefore it (piloting) has a political dimension to it, that a good thing about the CRM is that suddenly all the customer relationships are owned by the company and not by those salespeople." "A major problem in our field is the fact that employees change frequently employers, there is a strong turnover rate of employees in our industry, people hop from one broker company to another and take the customers with them, because their CRM has been their own head. And this CRM in a way decreases the possibilities that this (loosing of the customer information as a company's asset) would anymore in the future happen as straightforward as before…".
		"The piloting gave us two results: first it made us certain about the fact that a CRM system is suitable for our industry, second, it made us sure about the fact that as a matter of fact CRM is suitable for all of our business units, this process approach is applicable...".
		"The prototype was actually very complete, after having seen it, it at least looked like, if not its functionality yet, though… as pretty final…".
		"I feel that this kind of a system very quickly has the effect that there are no other alternatives, that it is the only way to take care of the fact that all customer information is in one place and the agreements are up-to-date. It will change the way how people work in the sense that it is much more clever way than any other way… yes, it will cause a change in the way

		people work.”
11.8.2005	CRM project manager of F-Bank	Background: “Last autumn all business units streamlined their strategies for the years 2007-2008 and in their strategy plans the need to implement a better CRM solution came clear”.
		“The background was that we first wanted to increase our understanding of what CRM is about, because it means different things to different people. Thereafter, we planned to map the available CRM solutions on the market… we have had two earlier solutions “Vineyard” and “Cliento” and the goal was to implement one system, which everybody could accept.”
		“…we realized that there is a risk in this because IT department owns the project… we did not want that IT department starts the implementation project, brings up a solution on the table, and again people realize that this solution does not meet the requirements, therefore… we wanted from the start to better understand what the BU’s really wanted, and when they get something they would really be backing it, they have been involved in constructing it and making decisions about it…that’s why we wanted to go to this piloting”.
		Outcome: “First, we wanted to now better understand what is the critical data of customers that these BU’s really need; second, to help them understand, what these systems can really offer; third, I presumed that after the piloting we would have a list of the processes, by which customer relationships are managed in various BU’s; fourth, that we would get the commitment from the BU’s management to the implementation; fifth, BU’s would be ready to accept it and “carry it through””.
		“The results of piloting especially the description of the customer processes opened our eyes to really see what is critical… and the background literature material, which you sent us, helped us to realize what the risks may be… the need for getting a commitment from the BU’s became evident...”. “Furthermore, the prototype helped us to concretely see how it looks like… it became apparent that the essential about it is that it supports the customer management processes… it helped to open the eyes of people to understand what CRM is that it is more than just a form filled in with various fields of customer data and information of customer contacting, discussions and topics…”.
		“This is much harder in the sense that there is not such a substantial knowledge, because in a way it is embedded in everybody’s way of working… it is far more difficult to get to know everybody’s work practices, if you compare to the substantial knowledge of, say some investment instruments…”.
25.8.2005	CIO of F-Bank	Background: “One year ago we did at F-Bank some strategy work, where CRM was lifted up to a very high level in general…”. “Risk management was crucial … a fear that the whole implementation project would fail… costs should be kept on a reasonable level… training was one perspective…and that the product would be such that it could be used…”.
		Outcome: “Personally I as results from the piloting expected that people would become motivated… they would see that it requires work from them, too…training perspective… I feel that the greatest risk with a CRM is that the organization is incapable of changing the way it functioned before… in order to benefit from the system… therefore, afterwards the training is important to get people motivated to use the system”.
		“As a result at least the management now has a unified view of what this CRM is all about. The concepts have been cleared up. As to whether the people in various BU’s would now be more committed to it … I am not so sure, for the processes…”.
29.8.2005	BU manager of institutional asset management and private banking of F-Bank (became the CEO of F-Bank after 1 year, researcher’s comment)	Background: “In order to get better results than before, better customer service, we must have better information, too”. “We must have systems, where we can easily see what has been the results of a particular activity, or what result did we not achieve… the present systems, which are more of a customer database systems, to maintain customer information… do not serve this analytical need”.
		Outcome: “I think that the piloting was a good process, as a result we got the product definition, we got the picture of what this system should actually achieve, what functionality it should contain…”.
		“The description of the processes was a good way of telling to the whole sales organization that selling is not an arbitrary practice, but a systematic process… and that this system is compatible with such a process”.
		“These are abstract things easily this kind of…the making of this kind of a prototype makes it more concrete… it is easier for everybody to understand in the same way of what it can do or should do… I myself like things to be as concrete as possible”.
		“After having defined the sales process, I think that when the system

		supports the process which we in institutional asset management described, it helps to implement … salespeople more easily adopt it… rather than being some generic process description, now it is particularly described from the particular perspective of our kind of service in selling…".

Table 8. Document and interview data of Paper 2

4.2.3 Research results

As a result of my investigation I, apart from the need of reducing risk of failure, observed several other motivations for the piloting: the potential need for organizational changes; a need for a method to ensure that relevant CRM issues would be covered in the implementation; the desire to set the expectations by business units of the new CRM to a "realistic" level; and the strive for getting more and better business intelligence and analytical data of customer purchase behaviour. During the piloting process, the project group members realized that the major achievement was the identification and description of the sales and service processes. It became evident that what CRM could bring to the case company, was IT-assisted support for these processes. As a result of piloting, awareness grew of what a more systematic way of conducting sales work along the newly described sales processes would actually mean to the users: their work practices would need to change; more information of sales tasks and activities would be documented in the CRM database and this would shift power of managing customer relationships from salespeople to the company itself.

For the IT department in the case company piloting acted as a tool for organizational policy-making: piloting increased business unit commitment to the CRM implementation and ensured that future implementation would not be driven by IT alone. The CRM prototype highlighted the importance of accurately defining the owner of each customer relationship. Customer ownership was the basis for incentive allocations in the company. The prototype made clearer to everyone how its utilization would increase the transparency of customer and pipeline information across users and business units.

To conclude, as results of this piloting research several new findings emerged. The first new finding was that managers should be alerted about the fact that piloting may potentially fuel political controversies between organizational entities: increasing transparency of sales activity data - earlier held as personal - may reveal how effectively salespeople do their sales work; the results of sales work may be compared with those of others; and the power of an individual salesperson may decrease through the loosing of the ownership of customer relationships. The second new finding was that piloting may have a role in organizational policy-making or as a factor in a power shift from users to the company itself. This result supports earlier research (Jasperson et al. 2002) which implies that after the introduction of a CRM

system, the organization may need some more time to reach a new equilibrium again when the balance of power between the salespeople and the organization has changed. Management may want to inform sales organization about the expected benefits of sharing the customer information within members of a sales team in contrast to the drawbacks, which salespeople may feel by losing their personal ownership of the customer data. The third new finding was the effect, which a CRM implementation might have on salespeople's work practices. The prototype brought forward many aspects of potential risks of failure in a future CRM implementation including the potential effect on the incentive policies, because customer ownership would not anymore - as the case was earlier - be the basis for incentive allocations. Users' resistance to CRM may therefore increase as a result of piloting.

From a research interest perspective I have empirically shown that piloting may produce results, which are not always favourable for CRM project success. This result challenges the prevailing assumption that piloting would generally produce positive results and increase CRM project success (see Payne 2006 and Gentle 2002). The results of this case study indicated that a programmed façade level of a prototype was enough to clarify the process oriented functionality of a CRM application and bring to the fore the appropriateness of utilizing workflow functionality in supporting sales processes and task management therein. The results of his study give support to the alignment issue suggested by my research framework (Figure 2), and the results indicate that it is suggestible to first align the relationship marketing processes with the chosen customer relationship strategy before embarking on a CRM system implementation. Piloting may prepare the company for a strategic integration (Henderson and Venkatraman 1993) by increasing organizational awareness of how to better align the IT functionalities of a CRM system with the business, i.e., the firm's RM strategy. Furthermore, the results indicate that the introduction of a CRM system will affect humans' work practices and this may even raise resistance. Therefore, in my research framework the "affect" notion gets support but the expected "utilization" by users might not be realized without the users being able to sense an affordance of the CRM system. For future research it would be feasible to investigate what level of a prototype is capable of bringing the research cycle to a saturated level. If I had not participated in the piloting project myself as a researcher as well as a consultant, important observations on organizational change events might not have been revealed. Therefore I suggest that theoretical design research should extensively utilize action research approaches.

4.3 Research Paper 3: Wikström, C.-E. and Isomäki, H. Human-centredness in customer relationship management implementation research: Towards a holistic perspective. To be submitted to the

International Journal of E-Business Research. Available at http://www.cs.uta.fi/reports/dsarja/D-2008-2.pdf in the Series of Publications D-2008-2, April 2008, University of Tampere, Department of Computer Sciences.

4.3.1 Research problem

In the previous research paper I identified several human related issues of CRM success like the potential shift of power from users to the organization, the increase of political controversies and the effects on users' job descriptions. In the literature review of emergent factors of CRM success or failure I found additional human related factors, which may potentially affect a successful CRM implementation. Incentive alignment, resistance, commitment and the fear for change of power relations were only a few. According to Zablah et al. (2004, p. 480) the CRM phenomenon is best conceptualized as "an ongoing process that involves the development and leveraging of market intelligence for the purpose of building and maintaining a profit-maximizing portfolio of customer relationships". Thus, they introduce knowledge and interaction management as the two major sub processes of the CRM macro level process. Therefore, the interaction management process is highly dependent upon the human resources of a firm. In particular, the market intelligence of a salesperson plays an essential role in the process of transferring customer knowledge to the firm's portfolio of customer relationships. The salesperson's capability of understanding human qualities and recognizing the factors essential to maintaining customership is the significant micro process establishing market intelligence.

In this research paper the argument is that for CRM to be successful a CRM system should be implemented and used in such a way that the users – in our research the salespeople – are empowered, motivated, committed and willing to utilize the CRM system for knowledge management. Our analysis concerns elements related to the users of operational CRM applications and sales force automation (SFA) applications as the objects of our investigation. Research has shown that 55-75% of SFA projects may fail (Honeycutt et al. 2005). The high failure rate may be explained by gaps that exist, between the salespeople and management, in SFA perceptions and goals. Moreover, Honeycutt et al. (2005) state that the benefits, which firms seek from implementing SFA, appear to be poorly planned, communicated and evaluated and/or is incongruent with the perceptions and goals of salespersons. Little is known about how human issues connect to the success of CRM implementations (Boulding et al. 2005). Payne and Frow (2005, p.

167) emphasize human issues as priority area for further research: “CRM can fail when a limited number of employees are committed to the initiative; thus, employee engagement and change management are essential issues in CRM implementation”. Recently human factors have been included in models investigating CRM implementation success (Mendoza et al. 2007), yet research into the role of the human being in CRM has been predominantly quantitative and concentrated on the set of tasks of humans (Moncrief et al. 2006), and not on the qualities of the human being in doing her work.

My overall research framework for studying CRM success (Figure 2) suggests that the human being is essential in delivering value to the customer as well as to the firm itself. The role of the CRM system is to support the users in this value delivering process. At the same time the human being is affected by the transformation of sales and service processes triggered by the potential need for change of the firm’s relationship marketing strategy. The human being and his/her role are the object of both planned and emergent change. I argue that the research concerning CRM implementation success should focus more on human-centred issues. In this paper these human-centred issues are further elaborated. From a managerial perspective it would be beneficial to find out how to best reach alignment of the human qualities of salespeople with the effective and motivated utilization of a CRM system for customer knowledge acquisition and management. Our study contributes to the understanding of the role and activities of humans in CRM implementation and presents human qualities as success factors. We argue that this is an area worthy of scholarly attention and our study is the first attempt to conceptually investigate how the qualities of the human being emerge in the existing CRM literature and how humans are considered crucial to successful CRM implementation. We in this research paper propose the importance of carrying out conceptual research in the quality of human-centredness in CRM for sales force automation. The first research question is: what is the image of the human being in the context of CRM? The second research question is: what would be a suitable framework for a holistic view of humans in CRM? Thirdly, by applying the framework for a holistic view of people in CRM, we investigate to what extent does the existing literature on CRM implementation success take human qualities into account?

4.3.2 Research method

In our conceptual theory building approach we follow the guidelines set out in Järvinen (2001, p. 18). According to Järvinen (2001, p. 18) a theory should include 1) a boundary that describes the domain of interest; 2) key constructs within that domain; 3) the values these constructs can take on; and 4) the relationships among key constructs. Constructs refer to the phenomena of interest in the theory (Dubin 1978). We set the boundaries that define our application domain by defining the prevailing image of the human being in CRM, and specify the significance of the notion of the human being as a CRM success factor. We carry out a conceptual

analysis with a normative orientation that draws on the previous findings of CRM research. In this way the analysis emphasizes the utility aspect of the concept of the human being in understanding the underlying assumptions rather than presenting different interpretations of human-centredness (cf. Järvinen 2001). Our aim is to bring to the fore and discuss the nature and qualities of humans in CRM theorization. We hope that the explications of the construct will facilitate further research and serve as a better foundation for development of CRM applications.

Based on the theory building approach from above we have formulated the following research questions and the respective research objectives:

Research questions	**Research objectives**
1) What is the image of the human being in the context of CRM?	1) to explore the specific roles and activities of the human being in CRM
2) What would be a suitable framework for a holistic view of humans in CRM?	2) to develop a taxonomy relevant for understanding the nature and delineation of the human qualities in CRM implementation
3) To what extent does the existing literature on CRM implementation success take human qualities into account	3) to explicate the nature of the image of the human being in CRM implementation success, and to make the variety and limitations of human-centredness visible in CRM

In our research framework there are two main elements, which are the dimensions by which the notions of the human being can be categorized and summarized based on philosophical work. According to the first element, Rauhala (1983, p. 19) states that it is common to distinguish between monistic, dualistic, pluralistic and monopluralistic models of the human being. For example, monistic conceptions are based on the idea that the human being consists of only one basic mode of being. In general this one mode is matter. Dualistic models consider that, in order to understand the human being two different modes of being must be presupposed (Rauhala 1983, p. 19). In pluralistic conceptions it is presupposed that the human is actualised as many kinds of subsystems (e.g. vision, digestion, memory and emotions), with their own structures and thus also relative independence. In this way the 'number of basic modes' is one method of categorizing different notions of the human being. In our framework the different ways of defining the notion of the human being are summarized by referring to both Rauhala's categorization of the numbers of the basic modes of being, and to Wilenius' structure of the basic modes of being –classification, which is the second element in our framework. Wilenius (1978, p. 10-14) states that the human being can be seen as a physical system, as an organic system, as a mental-psychical system and both as a social and cultural creature. These are the two elements which form the conceptual framework for outlining the multiplicity of the human condition as a whole. We have used this framework as our lenses to analyze what kinds of human qualities there are in the previous research on CRM success.

To achieve our research objectives we first conducted an extensive literature search and as a result 17 articles were selected for closer analysis. After collecting the set of articles for closer investigation, the full text of each article was reviewed and analysed. The analysis was carried out by first identifying aspects and topics related to the roles and activities of humans and the image of the human being. Thereafter, these human-related aspects were analysed according to the constructs of

our holistic framework. In this way we explicate the contents that the concept of human-centredness can take on within the domain of CRM.

4.3.3 Research results

We explicated some common roles of the human being in the context of operational CRM: the role of a salesperson, the role of a part-time marketer and the role of people in a company's service processes, and the activities of these people in managing their customer interactions. The salesperson role – what salespeople do – has been investigated empirically and as a result several dimensions of selling have been explicated. Among these dimensions relationship selling, promotional activities and sales service, prospecting, office work and general computer use, all concern the utilization of information technology. Furthermore in these roles people are often seen in terms of knowledge, which emphasizes the cognitive qualities of people, such as knowing. Knowledge management concerns all of the activities directed towards creating and leveraging the market intelligence that firms need to initiate, build and maintain profitable customer relationships. We have shown that much of the essential job functions of a salesperson relate to the communication with the customer assisted by technology.

As a result of our review and analysis of the existing CRM success literature we found out that in eleven out of the seventeen articles which we analysed the basic human mode of being is either monistic or monistic/dualistic. This indicates that the prevailing image of the human being in the CRM implementation success literature is that of a physical object. The human being has been portrayed as an "intermediary" between the CRM system and the customer (Bose 2002), as a "player" in the firm's portfolio of CRM capabilities (Plakoyiannaki and Tzokas 2002), or as an "organizational member", with certain roles, who should execute certain activities pertaining to that role (Zablah et al. 2004). Furthermore, our results demonstrate that the prevailing image of humans as CRM system users is a managerial one. The managerial perspective regards humans not in terms of their mental qualities, like fear, or their feelings of being undervalued, not by their qualities in relation to competencies needed in various CRM implementation tasks, but on the contrary solely by their functional roles (Peppard 2000; Reinartz et al. 2004; Payne and Frow 2005). In only three of the articles is the human mode of being pluralistic in that the human being has been shown to possess mental qualities like feelings of friendliness, jealousy, selfishness, opportunism, or the need for responsiveness (Colgate and Danaher 2000; Ryals and Payne 2001; Corner and Hinton 2002). At the same time humans are seen as social creatures, when e.g., salespersons' feelings of remoteness from IT support colleagues had a negative effect on salespersons' ability to share their feelings of success with support persons about using CRM (Corner and Hinton 2002).

According to the results of our analysis a monopluralistic conception of the human being is presented in only three of the seventeen articles. In the

monopluralistic articles users' own assessment of the correctness of the configuration of a CRM system is seen as a major factor for successful CRM implementation (Gefen and Ridings 2002), humans are admitted to have difficulty in assessing the relative advantage the use of CRM would bring to their job (Speier and Venkatesh 2002), or humans are involved interactively in the CRM system design, where their intellect and capability to address conceptions of design issues are acknowledged (Wilson et al. 2002). In these articles the holistic quality is revealed in several ways: first, a number of human characteristics is recognized; second, the human features are often seen to co-exist or intertwine with each other; third, these conceptualisations suggest that the relationship between users and CRM system designers as well as the IS-user relation is a reciprocal process, including characteristics of typical human behaviour.

Our study contributes to the CRM success literature in several ways. First, many researchers have emphasized the need to more thoroughly investigate the "people issues" in CRM (Plakoyiannaki and Tzokas 2002; Chen and Popovich 2003; Boulding et al. 2005; Payne and Frow, 2005; Mendoza et al. 2007). Furthermore, previous research into the image of the human being in CRM has been functional or quantitative by its nature and concentrated on the job functions and work activities (Moncrief et al. 2006). Our work is a first attempt to address these issues and it, instead of only concentrating on the role of the human being in the context of CRM, investigates the qualities of the human being as success factors in CRM, too. Second, our study provides a conceptual framework for a holistic view of humans in CRM and identifies key elements within the holistic perspective. In this way we are extending the frameworks for CRM by previous researchers (Mendoza et al. 2007; Payne and Frow 2005). By applying the holistic framework we have outlined the nature of the human being in the context of CRM and demonstrated what kind of quality assumptions may be connected to humans in this context. Third, our study offers managers insight into how the various human qualities may be taken into account when in various CRM processes they assign the appropriate customer interaction and knowledge management responsibilities to humans. To succeed in CRM implementations managers should apply a holistic perspective on the human being as a user of CRM applications. We suggest that it would be hazardous for managers to understand humans solely in terms of distribution of tasks, in accordance with the roles and instrumental purposes. It is important to focus more on the individual and personal human qualities and make efforts to show humans the affordance of the CRM system in their daily practices.

5. Summary

In this section I shall introduce a summary of my research results by first presenting the scientific merits of my research. The connection of the research results to the constructs of the original CRM success framework (Figure 2 in the section Method and the framework for studying CRM success) are presented in the text as numbered references to the respective elements of the framework (see Figure 4). Second, I shall introduce some implications to the practice, and third, I shall discuss the limitations of the research. This section will be concluded by some ideas for future research.

5.1 Scientific merits

The research framework (Figure 2) has been constructed based on the literature review and on other CRM success frameworks (see the earlier section Method and the framework for studying CRM success). After having analyzed the literature and previous frameworks (especially the extensive framework by Payne and Frow 2005), I found out that change and human beings are the two entities, which have been understudied in previous research. Therefore, I have tried to fill up this research gap and selected change and the human being as the main objects of investigation. Payne and Frow (2005, p. 172) have introduced "multichannel integration process" as an important entity in their conceptual framework. This entity consists of alternative channels for customer interaction from virtual to physical ones. "Sales force" is mentioned as one physical channel related to human beings as well as "outlets" and "telephony". On the virtual side the authors list "direct marketing", "electronic commerce" and "mobile commerce". They further note that "the multichannel integration process is arguably one of the most important processes in CRM because it takes the outputs of the business strategy and value creation processes and translates them into value-adding activities with customers" (Payne and Frow 2005, p. 172). The notion of "translating the outputs of the business strategy…into activities with customers" to my mind implies the role of the human beings in the value creation process, as well as a potential need for transforming processes to conform to the business strategy. However, Payne and Frow (2005) have not investigated factors potentially relating to the qualities of the human beings in successfully completing the "translation" process, nor have they

studied the issues of change embedded in the notion of "translation". I have studied these issues in more detail in Papers 1 and 3.

Other entities in the framework by Payne and Frow (2005) are strategy development process, value creation process, information management process and finally performance assessment process. Again, embedded but not explicitly presented in their framework is the notion of transformation. E.g., they illustrate interactions between the process entities suggesting that e.g., strategy development would affect value creation process and vice versa. However, change and its many forms as I have illustrated in this dissertation, have not been made explicit. I maintain that it is important to investigate the various forms, which change may take in the interactions between the processes. Furthermore, interesting is the issue of how change is related to the human beings in this context. Payne and Frow (2005) introduce information management process as interacting with all the other entities too, but again more detailed analysis of the role of IT could be demonstrated. To conclude, I have in my research framework made these three entities: humans, IT and change more explicit and in this dissertation investigated them thoroughly in order to gain more insight into their role in the context of CRM.

After having applied my research framework, several new findings emerged. First, I was able to in Paper 1 identify the various emergent change entities (ref. no. 9) (decline in demand for services, intensifying competition among others), which were shown to be agents for additional change processes and which also could create more risks to successful CRM. Second, the results in Paper 2 imply some risk factors related to humans and the organization after the introduction of an IT system (ref. no. 4 and 5): piloting may potentially fuel political controversies between organizational entities in various ways. Firstly in the form of increasing transparency of sales activity data - previously held as personal – revealing of how effectively salespeople do their sales work; secondly the results of sales work may be compared with those of others; thirdly the power of an individual salesperson may decrease through the loosing of the ownership of customer relationships. Furthermore, the piloting may have a role in organizational policy-making or as a factor in a power shift from users to the company itself. Third, as I stated earlier in the section The CRM value, I have included the CRM value entity in my framework and attached it to the human being entity and customer entity (ref. no. 7) because, the human touch is highly critical to effective customer interaction management. However, I have deliberately left closer investigation into the elements of CRM value to future research. Relationship benefits may be related to human qualities like emotions in e.g., increasing feeling of trust or social bonds with a customer.

The results in Paper 3 indicate that the prevailing image of the human being in the CRM implementation success literature is that of a physical object. The human being has been portrayed as an "intermediary" between the CRM system and the customer (ref. no. 4 and 7), as a "player" in the firm's portfolio of CRM capabilities, or as an "organizational member", with certain roles, who should execute certain activities pertaining to that role. Furthermore, the research results demonstrate that the prevailing image of humans as CRM system users is a managerial one. The managerial perspective regards humans not in terms of their mental qualities, like fear, or their feelings of being undervalued, not by their qualities in relation to

competencies needed in various CRM implementation tasks, but on the contrary solely by their functional roles. The human being is seen as a performer, whose performance is supposed to be managed by adjusting corresponding incentives. The human being is seen as an actor, who must adapt to organizational goals and be flexible to adjust to changes in processes (ref. no. 5 and 8), towards which the company is driven by the adopted customer-oriented relationship marketing strategy (ref. no. 2, 5 and 8). The results of the human-centred analysis show that various human qualities have been underestimated and those, which do not conform to the prevailing managerial view, are overemphasized. The investigation of the human being entity in the CRM success framework has demonstrated that more effort in organizations is needed to take various humans qualities into account, when customer interaction and knowledge management responsibilities are assigned to users.

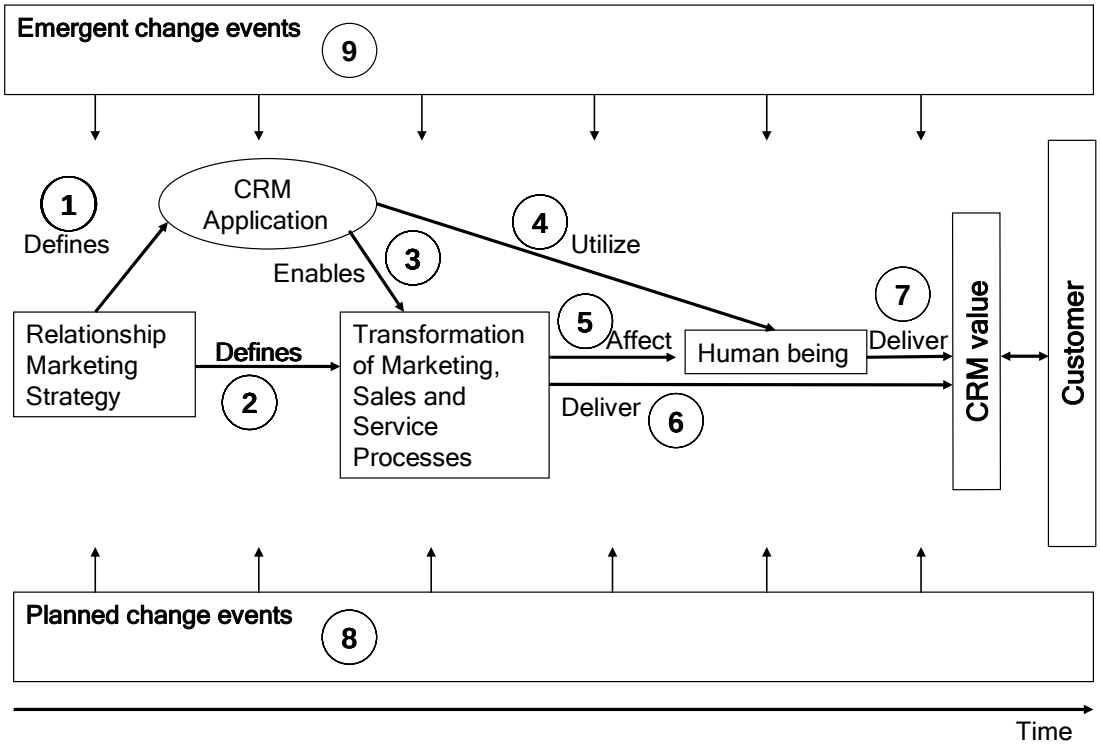

Figure 4. Research results in reference to the constructs of the CRM success framework

The research framework lends support to elements in previous research frameworks, too. First, my framework support the Strategic Alignment Model (Henderson and Venkatraman 1993) in that to succeed in CRM a company should first change its strategy to become customer-focused before implementing a CRM system (ref. no.

1). In the study of Paper 1 the case company succeeded in achieving a fit between the RM strategy and the RM processes (ref. no. 2). Second, the results of the piloting study support suggestions for applying piloting in technochange management (Markus 2004). The results are implying that by means of piloting, organizational members may realize what would be the main achievements of a CRM deployment. The identification and description of the sales and service processes as part of the piloting assisted in getting a realistic perspective on the potential outcome of implementing a CRM system. It became evident that CRM could afford IT-assisted support to these processes (ref. no. 3). Third, my research results indicate that a power shift from users to the company itself may be a factor in CRM implementation. This result supports previous research (Jasperson et al. 2002) and implies that after the introduction of a CRM system, the organization may need some more time to reach a new equilibrium again when the balance of power between the salespeople and the organization has changed. This lends support to Markus (2004) by indicating that more time in the technochange lifecycle is needed to reach the last phase, "the benefit capture". It also implies that the CRM system takes time to get aligned with the organizational characteristics, such as culture and to create affordance to the users.

Based on the results of my research, I have been able to empirically show that for successful CRM implementation it is important for the company to first establish a clear customer relationship strategy. First thereafter is the company ready to engage in the organizational transformations (ref. no. 2 and 8), which are in many cases needed in order to adjust the business processes and the people thereof (ref. no. 5) to operate and work more customer-focused. This result supports the propositions in existing CRM literature, but scientific evidence of the relevance of first establishing strategy and then engaging in transformational efforts has not before been shown empirically. Furthermore I have shown that even though transformational issues may affect CRM success, change should be investigated from a broader perspective than focusing on intentional change events (ref. no. 8) only. My research results give evidence to the fact that emergent change (ref. no. 9) should be included as an important factor in future CRM success research.

The piloting of CRM before embarking in investing in the final CRM implementation has been suggested to be a viable approach to secure a successful CRM implementation. However, scientific evidence of whether this assumption is true or not hasn't been tested before. In the design science research of piloting CRM I have empirically shown that the results can be controversial and piloting does not always guarantee a positive result and it does not necessarily support successful CRM implementation. On the contrary piloting may even raise the risk for failure.

My research results indicate that to a great extent the value proposition of CRM is fulfilled by the human beings, the users of a CRM system and hence an evident prerequisite for the CRM process to be successful are users who are empowered, motivated, committed and willing to utilize the CRM system for knowledge management. I have been able to explicate the role of the human being in the CRM context and show how the human being appears as a success factor in CRM. I have explicated the human qualities present in previous research on CRM success and shown how the various human qualities of people in CRM context should be taken

into account. The research results indicate that for successful CRM we need a more holistic approach to human beings. I have shown that previous research into the humans in CRM has been predominantly functional and that the tacit and sensitive dimensions of the human beings cannot be revealed by quantitative methods. Therefore in future research more qualitative approaches are needed. I have brought a fore and discussed the nature and qualities of people in CRM theorization, and thus offered new explications of the construct to serve as means for further research and also development of CRM applications.

I have constructed a research framework, which was based on the works of previous researchers. However, previous frameworks have been extended by the entities of change and the human being. I have in the assessment of this new framework shown that there has been a research gap in previous research on CRM success and that my extensions to the research framework have given new evidence of factors potentially affecting successful CRM.

From a methodological perspective I have shown to have been able to apply multiple research approaches. The case study research into the phenomenon of change in the CRM implementation context has been a study best categorized as a theory creating approach. Design science approach and applied action research was utilized in conducting the design science research project. This design science research falls into the category of research stressing utility of artefacts by evaluating the artefact of a CRM application. Conceptual analytical approach was applied in the research of human-centredness in CRM.

5.2 Implications to practice

My research results suggest that to be successful managers of CRM should start by implementing a relationship marketing strategy and first then invest in a CRM project. Furthermore the implementation of a CRM system should not be started before relevant CRM processes have been defined and transformed in alignment with the CRM strategy. I suggest that managers would use piloting extensively especially, if the implementing of a CRM system has not yet been started or the implementation process is still on an early stage. However, managers should carefully consider how to deal with and prepare for the potentially critical outcomes of the piloting, too. Managers should be aware of the potential increase in employees' awareness of the consequences of the CRM implementation to their power relations and to the increasing transparency of their customer knowledge possessions. In order for the managers to better manage the human-centred issues involved in a CRM implementation, managers should take the quality of human beings in a holistic manner into consideration. Understanding humans exclusively in accordance with roles and purposes implies that people can be defined in a given system in terms of division of labour or some other instrumental task, and thus, humans are reduced to something that exists only in relation to particular

instrumental needs and purposes. More efforts should be put on human resources management, in individual coaching and training. Managers should invest more into user support, which should focus on how the individuals better realize the affordance of a CRM system for their individual needs in their daily tasks. Managers should consider motivating users by showing the benefits of CRM for their individual work practices.

5.3 Limitations of the study and suggestions for future research

One limitation of the results of my study is the fact that I have in both of the first research papers conducted a single case study. The cases in the respective papers are different, though, but the representativeness of the results may still be somewhat limited. In the first paper the case company is an ICT service provider. This may distort the results, because e.g., the consequences of some of the environmental change entities - especially the year 2000 phenomenon - were exceptionally severe to companies on the high-tech and ICT industry. One may also argue that the employees in the first case company were more capable than employees in average to utilize IT in their daily work. Therefore, the rate and the speed of the adoption of a CRM system might not have been as representative as in other companies in other industries, say in manufacturing or in retailing. In this first case company, before embarking on the implementation of the CRM application, customer data was dispersed in various data sources like Excel sheets or Outlook contacts file. Therefore, based on my experience from the over 100 CRM projects were I have been involved as a consultant, the starting point for the collecting of existing customer data and migrating it into the new customer database was exemplary.

Furthermore, one limitation is the fact that the case companies in both of the papers were from service industry. However, the second case company is a bank and some researchers have maintained that financial institutions may be ideal for studying customer relationships (Peppard 2000). Another limitation as to the generalizability of the results of the second case company is the fact that this was not the first CRM implementation effort in this bank. Therefore, one might argue that the results of the prototyping may have somewhat reflected the experience of the previous (partly failed) CRM implementations. However, in this case, too the previous customer data was dispersed in various databases and one major effort in implementing the new CRM system was the merging, duplicate checking and migrating of the various customer data sources into a new, unified CRM database. In the third paper the conceptual study has its limitations by only concentrating on one role within CRM which is that of a salesperson. Future research should take into account the managerial and executive roles as well as various other roles in customer service and part-time marketing functions.

I have on purpose limited the scope of my study and focused on only four of the five success topics in Zablah et al. (2004), namely strategy, process, human capability and technology perspectives. I have left the philosophical perspective to less attention. Furthermore, the CRM value entity was not in my focus and therefore would need more attention in further analysis of the framework. CRM value component is an essential object of research in studying how the philosophical propositions of CRM would in practice be turned into generated value for both the supplier company and the customer. I agree with Ravald and Grönroos (1996) that one needs to study empirically customer-perceived value in a relationship marketing setting. Therefore, I suggest that in the future researchers could investigate how the utilization of a CRM system would assist salespeople in creating episode value. These results would benefit the investigation of factors potentially affecting the total relationship value, too.

Furthermore, I suggest that future research would consider refining and enhancing the framework, which I have constructed to help in the investigation of CRM success. More empirical studies and the collecting of evidence from multiple organizations are needed. Researchers might, in order to gain better understanding of how the affordance of CRM could better be actualized in the daily work of the human beings in the context of CRM, utilize action research. Specifically I suggest that researches would extensively utilize phenomenography (Marton and Booth 1997) as the research method. Therefore, an interesting research setting would be to gain access to a work place, where a sales team and its individual users could be observed in their daily practices. Observation could focus on their interpretations of the role of IT in their work and their interpretations of the usefulness and affordance of IT in completing their sales tasks. To gain more insight into the tacit and sensitive dimensions of the human beings, quantitative methods may be too reductive of their nature.

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A Case Study of Emergent and Intentional Organizational Change: Some Implications for Customer Relationship Management Success

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Abstract

The shift from a product-oriented business strategy to a customer-focused one has been a major change agent in companies recently. Many companies have invested heavily in technologies enabling a customer-focused relationship marketing strategy. However, there are mixed results as to how successful firms have been in implementing customer relationship management systems. The challenge of managing organizational change has been raised as a potential factor affecting the successful outcome of CRM efforts. Our argument is that the proposed relationship between CRM success and organizational change should be made more explicit in order to thoroughly investigate this challenge. Our paper contributes to this by presenting the results of an exploratory single case study. We identified several change events on different observational levels. Our findings suggest that to succeed, one should first identify both emergent and planned change processes. Then one could evaluate, whether change events - triggered by these processes - might effect one another in a way which could endanger the successful CRM implementation outcome.

1. Introduction

Relationship building and management, or what has been labeled as relationship marketing, is a leading approach to marketing [17]. Practitioners as well as academics suggest that customer relationship management (CRM) provides an actual platform for the operational manifestation of relationship marketing [25], [16].

Recent studies show that the movement to customer relationship management is gaining momentum [16], [21], [27], but still, after several years of implementing information technology to support relationship marketing, up to 55% of all CRM projects do not produce results [26], [28].

The high risk of failure has motivated many researchers to study CRM success [5], [4], [32], [24], [1], [15], [7]. Some of the studies suggest that in order to succeed in one's CRM effort, one should hit multiple targets at the same time. In their recent survey, Goodhue, Wixom, and Watson [16] found three targets important: applications, infrastructure, and transformation. The authors maintain that "organizational transitions are the most disruptive and difficult CRM targets to reach". According to another survey by CRM Forum [26], the majority of responses pinned the failure of their CRM programs on the lack of adequate change management. If a company fails in transforming the organization and its processes (marketing, sales, and customer service) to become more "customer focused", the investment in the CRM system might not pay back in the long run. Gartner, Inc. predicted that the worldwide spending on CRM would reach $76.5 billion in 2005, up from 23.26 billion achieved in 2000 (in Starkey, Woodcock [28]). Consequently there is a high financial risk involved in a CRM effort.

Even though managers of CRM should lead and execute intentional change, increasingly the feasibility of "managing change" is being questioned [2]. Change cannot be reified as something "done" to individuals since individuals play intrinsic role in shaping change outcomes. The notion of change management refers to models of planned change. One example of such a model is the three stage model developed by Lewin [19], describing a change process as involving the stages of unfreezing, changing and refreezing. According to change management perspective, change is treated as a discrete event to be managed separately from the ongoing process of organizing. Focusing only on change management issues would leave out the issues of change emerging from the unpredictable interaction between IT and its human and organizational users [20]. We argue that it is as important to investigate issues of change emerging unpredictably as it is to investigate those that have been planned ahead. We therefore decided to explore

the phenomenon of change in CRM context in more detail. Our research question is: which kinds of both emergent and planned change events may occur in an organizational context during a CRM implementation. Furthermore we are interested in how these change events were managed for the successful outcome of a CRM effort.

In order to get deeper insight into organizational change, we chose to investigate the phenomenon qualitatively and selected one case company for a thorough investigation. Instead of selecting a more positivist research method, we believe that an exploratory approach helps to bring about factors of change that otherwise might not have been revealed.

The paper is organized as follows: first, we develop the theoretical background for our research. We define the core concepts and describe the results of earlier research into IS supporting relationship marketing, and into organizational change. Based on our literature review we introduce a research framework, which we have used as lenses in analyzing the results of our empirical findings. We then describe our case and the research methodology undertaken in detail. Finally we present our research results, conclusions and implications for future research.

2. Prior research into CRM and organizational change

2.1. Relationship marketing

During the past five to ten years there has been a growing interest in studying the economics of long-lasting customer relationships (see in Romano [27]). Long-term relationships where both parties over time learn how to best interact with each other lead to *decreasing relationship costs* for the customer as well as for the supplier or service provider. Grönroos [17] defines relationship marketing as follows: *"Marketing is to establish, maintain, and enhance relationships with customers and other partners, at a profit, so that the objectives of the parties involved are met. This is achieved by mutual exchange and fulfillment of promises"*. Copulinsky and Wolf [10] define relationship marketing from a different angle stressing the role of IT as a *"process where the main activities are to create a database including existing and potential customers, to approach these customers using differentiated and customer-specific information about them, and to evaluate the life-term value of every single customer relationship and the costs of creating and maintaining them"*. This definition includes the role of IT in supporting the relationship marketing processes.

2.2. Customer relationship management

Starkey and Woodcock [28] define customer relationship management (CRM) as being a business philosophy: "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 identified existing and potential customer segments". In the definition by Rigby, Reichheld and Schefter [26] "CRM aligns business processes with customer strategies to build customer loyalty and to increase profits over time" the words *technology* and *software* are totally absent. However, evidently CRM is the bundling of customer strategy and processes, supported by the relevant software, for the purpose of improving customer loyalty and, eventually, corporate profitability. In this definition, which we have adopted for our research, we can observe the underlining of the alignment of all three components: business strategy (i.e. relationship marketing strategy), processes which support this strategy, and IT.

The IT component of CRM or the CRM technical architecture can include many applications, performing both analytical and operational functions. In our study we have adopted the CRM technical architecture from Goodhue, Wixom, and Watson [16], as shown Figure 1.

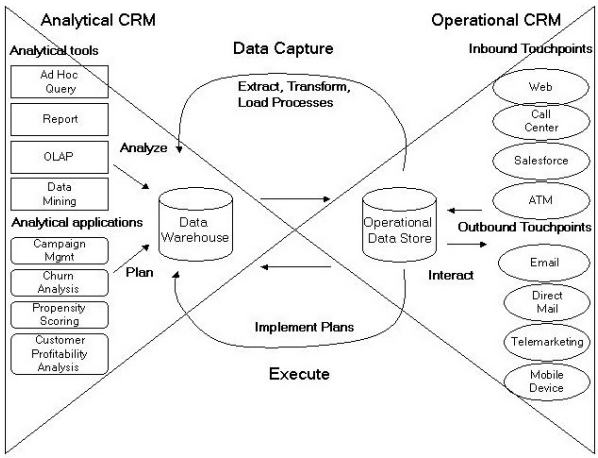

Figure 1. CRM technical architecture

On the analytical side, a data warehouse typically maintains historical data that supports generic applications, such as reporting, queries, online analytical processing, and data mining, as well as specific applications such as campaign management, churn analysis, propensity scoring, and customer profitability analysis. On the operational side, data

must be captured, integrated, and stored from all in-bound touch points, including the Web, call centers, sales force, and ATMs. This data may be augmented with external demographic data. Current data can be maintained in an operational data store that supports operational applications, such as e-mail, direct mail, telemarketing, and customer support. An additional example of an operational application is sales pipeline management. The purpose of a sales pipeline is to manage all sales activities, especially those related to sales opportunities and offers. A sales pipeline helps sales management to forecast the probability of future sales. It produces data to the analytical side as well.

2.3. Identified problem areas of CRM success

There are many practitioner-oriented reports [26], [28], [25], [32], [5] as to why CRM fails. However, there is only a small amount of academic research published on factors affecting the success of CRM. The study of 13 cases conducted by Fjermestad and Romano [15] showed that organizations need to design and implement CRM systems to review and apply the principles of usability and resistance. The authors maintain that "the key reasons for successful CRM implementations were that the organizations focus on people and iterative, incremental approaches". According to a recent account of problem areas in CRM success, Rigby, Reichheld and Schefter [26] list four problem areas out of which two, "the implementing of CRM system before a business strategy has been created" and "rolling out CRM before changing the company's organization", relate directly to organizational change issues.

According to a survey by CRM Forum (in Rigby, Reichheld and Schefter [26]) 87% of the interviewees pinned the failure of their CRM programs on the lack of adequate change management. Corner and Hinton [11] examined the implementation risks and relationship dynamics in a case company and found that politics and vested interests, the need for mobility, and inadequate funding were the most common risk categories. To avoid the risk of failure, Colgate and Danaher [9] point out the importance of internal marketing and employee empowerment, profitable target segments, a business strategy emphasizing service, sufficient levels of involvement, high experience or credence qualities (greater risk and uncertainty), and the ability to calculate relationship performance.

Based on our analysis of the literature on CRM success, we chose to select organizational change as the main focus of our empirical investigation. Organizational change in CRM context has not been widely investigated empirically in studies that we analyzed. Chin et al [7] do investigate change in the CRM implementation context, but in a positivist approach. They describe CRM implementation as a change process, and show that it was of a teleological nature (see Van de Ven and Poole [30]). In the following section we introduce relevant previous research into organizational change.

2.4. Research into organizational change

Research into organizational change has a long history in the organization science [20], [30], [8], [23], [14], [29], [22]. Van de Ven and Poole [30] introduce four basic theories for explaining processes of change in organizations: life cycle, teleology, dialectics, and evolution. These four theories represent different sequences of change events that are driven by different conceptual motors and operate at different organizational levels. Van de Ven and Poole have defined the core concepts of change processes as follows: *process* is the progression of events in an organizational entity's existence over time; c*hange*, one type of event, is an empirical observation of difference in form, quality, or state over time in an organizational entity; the *entity* may be an individual's job, a work group, an organizational strategy, a program, a product, or the overall organization.

Buchanan [6] considers the methodological implications arising from competing narratives of an organizational change process and demonstrates polyvocality of organizational change research. Orlikowski [23] examined the use of a groupware technology and found that the customer support department realized many organizational changes that altered the nature and distribution of work, forms of collaboration, utilization and dissemination of knowledge, and coordination with internal and external units. Tsoukas and Chia [29] set out to offer an account of organizational change on its own terms – to treat change as a normal condition of organizational life.

Henderson and Venkatraman [18] have formulated the well-known and much referred to model of strategic alignment. The authors argue that the inability to realize the value of IT investments is in part due to the lack of alignment between the business and IT strategies of organizations. Strategic alignment is not an event, but a process of continuous adaptation and change. Another interesting and recent view to conceiving organizational change management has been to see the change process as a process of knowledge generation [2].

Markus and Robey [20] discussed how the so-called technological and organizational imperative perspectives have dominated research related to the development and implementation of IT and the related

organizational change. These perspectives delineate clear cause-effect relationships between technology and organization. Technology is, according to the technological imperative perspective, viewed as an exogenous force, which determines or strongly constrains the behaviour of individuals and organizations [20]. The view that "human actors design information systems to satisfy organizational needs for information" again represents the organizational imperative perspective. However, during later years there has been an increasing focus on different variants of the emergent perspective, viewing the organizational change as merging from unpredictable interaction between IT and its organizational users [22].

Inspired by Markus and Robey [20] we chose to observe both planned and emergent change events. In our literature review we did not find any studies into emergent change in the CRM context. We chose to analyze the change phenomenon at three levels: environmental (markets, competition, societal issues like legislation), organizational, and individual level.

2.5. Organizational change and CRM success: a research framework

Why then is change management so important for a CRM implementation to succeed? Rigby et al [26] point out that a CRM rollout will succeed only after the organization and its processes - job descriptions, compensation systems, and training programs - have been restructured in order to better meet customer's needs. Along these lines Goodhue, Wixom, and Watson [16] note that "in general, changing the technology without transforming the organization often leads to less-than-optimal results. Companies may need to develop a customer-centric culture, hire personnel with the vision and skills needed to implement and practice CRM and change business processes, organizational structures and reward systems". If for instance the sales people, as a result of inadequate training, unsatisfactory reward system, or incomplete restructuring of sales processes, refuse or are incapable to use the CRM system, customer knowledge acquisition might suffer significantly. The company might therefore fail in gaining an up-to-date customer database, which would contain all the transactions, which salespeople would otherwise have stored as a result of their personal interactions with customers. Ultimately the customer database might degrade and become practically useless.

In order to help in analyzing the research results, we - mainly based on the research findings by Rigby, Reichheld and Schefter [26], Starkey and Woodcock [28], and Wigand [31] - constructed a research framework (Figure 2).

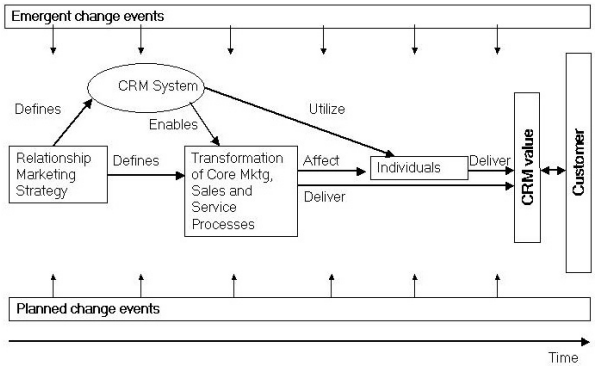

Figure 2. A framework for studying organizational change and CRM success

Our research framework contains the presumption that a company first needs a clear relationship marketing strategy to become customer focused. In order to then be able to implement this strategy, a company needs to transform its core marketing, sales, and customer service processes. This transformation of processes again has effects on individuals (changes in reward system, changes in job division). As an enabler to these new customer-focused processes is a CRM system, which will be implemented in co-ordination with the transformation of processes, and utilized by organizational actors (sales people, marketing professionals). Along the way of implementing this new strategy, the company is likely to face emergent as well as planned change events (triggered by putting the relationship marketing strategy into action).

The framework implies some causal relationships between various entities, but our main purpose in this study is not to search for evidence on whether some of these relationships do or do not exist in our case company. The motivation for constructing this framework is to give the reader a clearer view of the potential change entities. We use this framework as lenses when we try to shed light on questions such as: What types of organizational change events, both intentional and emergent, may occur in a CRM implementation. How in practice have these change events been managed in our case company? How did our case company succeed in their transformation process? Can we learn something from the way the change events were managed? Can some of our observations be generalized? In the next two chapters we shall introduce our case company and present the research methodology.

3. Research setting and methodology

3.1. Site

We selected Tieto-X Plc for our study for three reasons. First, the company operates very closely with its customers. Tieto-X is Finland's leading contract work solutions company specializing in IT expertise. Most of its revenue comes from contract work services supplied by software designers and programmers, who often work physically inside the customer's premises, and who participate in the customer's IT development project as if the customer firm employed them. It is therefore crucial that the customer also has access to Tieto-X's operational system in order to follow up the progress of an IT project, control its task-related transactions, and have access to all other information connected to the history of the co-operation with Tieto-X. Secondly, Tieto-X has over 120 Finnish companies and organizations as customers, including industry leaders from various business sectors, for example, from Finance, Public Administration, Trade and Industry, Telecom and Media. Many of them, like for instance Nokia, have a demand for advanced electronic interconnection with their IT suppliers. They are willing to participate in the development of new and innovative technologies to streamline and enhance supplier-customer interaction in general. Thirdly, by selecting Tieto-X for the study we had ourselves the opportunity, in the case company, to take on the role of actors in the implementation process of a new CRM solution. This gave us the unique opportunity to observe in a more insightful way the multifaceted phenomenon of organizational change.

Tieto-X's turnover in 2002 was EUR 17.3 million and operating profit EUR 2.0 million. The entire turnover was generated in Finland. Tieto-X has its headquarters in Helsinki and six local offices in other regions of Finland. The number of personnel is close to 270. Tieto-X was listed on the HEX Helsinki Exchanges NM-list in the autumn of 1999. Since Tieto-X was founded in 1995 (first year's turnover was 0.59 million EUR) it has grown at a similar or even faster speed than many other global and domestic IT companies. Tieto-X reached its best year - in terms of revenue figures - in 2001, when the turnover reached 21.39 million EUR. Last year (2002) meant for Tieto-X, as well as for many other IT companies worldwide, a slow-down due to a decrease in demand for IT services both globally and locally. Their turnover declined by 19%. However, in spite of the decline in turnover, the company has retained its profitability.

3.2. Data collection and analysis

We chose to conduct a single case study "which focuses on understanding the dynamics present within a single setting" [13]. Related to the differences in research approaches represented by Deetz [12], we leaned towards the *local/emergent approach*. We first constructed a research protocol. We then chose to focus on gathering data of organizational change events related to both the project of the CRM application implementation, and the process of implementing relationship marketing strategy. We used various methods and sources for data gathering. We conducted person-to-person interviews and interviewed members of the business management (CEO), marketing people (chief marketing executive, key account managers), members of the sales organization (salespeople, sales assistants), as well as IT experts (CRM project manager, CIO, members of the CRM software vendor's project group). We used documents extensively (annual company reports, process descriptions, CRM project requirements definition reports, CRM implementation project memoranda), and utilized our own side notes.

We interviewed persons asking mostly questions related to the phenomenon of change. We followed the logic of first asking an open-ended question "Have you experienced any changes during the CRM systems implementation project?". If the answer was "yes", we followed on by asking some clarification with more detailed questions like "Would you please describe in more detail the changes on the individual level, which you mentioned you have experienced". All interviews were recorded and transcribed. A total of 12 interviews were conducted during the period of December 2002 and September 2003. Each interview lasted from 30 to 120 minutes. Several meetings and re-checking with the interviewees were conducted during the process, in order to clarify our understanding of the topics that arose when we analyzed the material. In this research we chose to operationalize the definitions of *process, change events, and entity* from Van de Ven & Poole [30].

First, we used our framework in order to connect all the different change events found in the material to the respective entities in our framework. An example of an answer, which lead us in this analysis to locate a change event is "Well, in the situation in the autumn of the year 2000, and in the winter of the year 2001, you could see that the big things were over, and now you had to sort of turn around the whole sales organization from being a recruiting organization, which just needed to recruit more IT experts, to become a customer-oriented sales organization working on the front-line". These types of answers lead us to categorize this

particular change event to be emergent by its nature and belonging to both process and individual entities in our framework.

In order to be able to distinguish minor from major change entities we compared the answers of different individuals, and when we could identify several of the interviewees having mentioned the same change entity, we interpreted it as a major change event and listed it in our table. Then we arranged the observed change events of these entities into chronological order, and located them on some of the observational levels (environmental, organizational, and individual).

Environmental		Organizational		Individual	
Change event	E=emergent P=planned	Change event	E=emergent P=planned	Change event	E=emergent P=planned
Year 2000 phenomenon	E	Firm mergers and merging of different company cultures	P	Change in job descriptions	P
Finland joining EMU caused increase in demand for IT services	E	Change of business strategy to become customer-focused	P	New division of tasks	P
Intensified competition by foreign companies	E	New product/service portfolio was developed	P	Increase in turnover of salespeople	E
		New incentive program was introduced	P	Demand for new competencies	E
		Turnover of members of top management	E		
		CRM implementation	P		

Table 1. Change events at different observational levels

In Table 1. we have gathered together the results of our inquiry by listing the change events and the observational level at which they were identified. The table also includes the notion of whether the event was by its nature an emergent or a planned one.

3.3. Results

Two years ago a project group was established in Tieto-X, to evaluate the present systems portfolio and to define systems requirements for the total renewal of both financial and operational systems. The main reason for starting a total systems renewal process was rapid growth. The growth of the company was mainly due to several acquisitions during the years 2000-2002. In the year 2000 alone, three major IT expertise companies were merged with Tieto-X. Tieto-X did not have applications flexible enough to meet the growing need for future development and growth. A project leader, who was formerly a partner in one of the IT companies that Tieto-X had bought, and who had long experience in systems development on financial, human relations, and operational systems areas, lead the IT development group. The group received commissioning from the company's board of directors. The growth through mergers brought differing company cultures into Tieto-X's organization. The development group therefore decided to go through a total concept and process redefinition endeavor, the aim being to unify the disperse concepts and business processes derived from the merged companies.

A major enabler for the growth of Tieto-X during the late nineties was the market factor of the Year 2000 modification effort. Most of the Year 2000 problems tackled old legacy systems (e.g. Cobol or RPGII based). Many of the merged companies had precisely this expertise. Another environmental market factor supporting growth was the fact that Finland became a member of the European monetary union (EMU) in 2002. This secured a high demand for Tieto-X's services.

Due to the rapid growth through acquisitions, Tieto-X did not have a central, unified customer repository. All information on a customer relationship was dispersed in Excel files or files used by stand-alone applications. Most importantly the information of customer contracts was not readily available in the "front-end" (for those servicing and contacting the customer). The CRM project manager described the situation before CRM implementation project as "simply chaos". The CRM solution was bought as packaged software from a software vendor and it was integrated with both the HRM and financial systems in order to streamline competence and customer data management.

The customer relationship management system was scheduled to be implemented in the beginning of 2002 and targeted to be in production use by the early 2003. The CRM project was started by requirements definition in 2001 continuing through 2002. Existing marketing processes were identified and described. Sales process ("customer acquisition and customer retention") and customer development process ("customer relationship growth process") were identified as key processes. Management of IT expertise/competence information process and operational customer relationship management process (invoicing and sales reporting) were defined as supporting processes. Compared with the CRM Technical Architecture described in Figure 1, Tieto-X put the operational requirements of a new CRM system to the front. The analytical functionality was decided to be designed in the second development cycle.

An important requirement for the new CRM system was the sales pipeline management. Sales pipeline included data from the stock of orders as well as from the stock of offers. To get online data from a stock of orders/contracts required the new CRM system. All customer contracts would be stored in this new customer repository instead of in the old off-line Excel files. The management of the stock of offers required the new CRM system, too. Salespeople should now store all their offers in the new CRM system. A pipeline sales report was tailored to report total sales value of contracts on stock, sales estimates, a timeline, and to calculate sales figures by annual quarters. A comparison with figures from the corresponding period of the previous year, were calculated, too. In addition to the customer basic data, CRM database was designed to provide a history of all customer transactions, both inbound and outbound, such as sales and service contacts, offers, contracts, and past sales history. Most of the change at the environmental level was connected to the "Year 2000" phenomenon, and the fact that Finland joined EMU. Both of these change events offered the company many opportunities for increased business. At the same time, they, together with the company's planned strategy for increasing growth, were the seeds for planned organizational change. Intensified competition, which was due to foreign companies entering the Finnish market, was an additional emergent change event.

However, in the autumn of 2000 and early 2001, demand for expertise regarding the Year 2000 and especially EMU modifications declined. This compelled the management of Tieto-X to change their business strategy. The overall business strategy was changed from product-oriented to a customer-oriented one. Formerly Tieto-X had been a recruiting organization. In the late nineties the focus had been on finding resources to fill the ever-increasing demand. Now, when demand declined, a transformation of the organization from an order intake organization to a customer-centric one, was inevitable. "We wanted the salespeople to leave their cottages and go out to meet the customer", as the project manager described. The change agent in these planned change events was the declining demand – another emergent market factor external to the company.

In the winter of 2000 four companies were bought and merged with Tieto-X. This meant an increase of 90 employees and it also meant that the different company cultures and ways of doing things had to be unified and aligned. At the same time, triggered by the decline in demand, the management started a planned change project to transform the organizational structure to become more customer-focused. Organization was divided into business units each focusing on a particular customer segment. Each salesperson received dedicated customer relationships to manage, as well as dedicated branches of industry to serve. A new product/service portfolio was developed. In addition to the contract work services supplied by software designers and programmers, the company is currently developing new software subcontracting services and IT personnel outsourcing services.

As an agent in these planned change events, there is first of all the increase in competition. Contract work services offerings did not satisfy the need for growth, due to foreign companies starting to establish their presence in Finland. The chosen strategy to strengthen customer relationships towards "partnerships", which demands broader IT expertise and service portfolio, was another change agent. The management reacted to the emergent events by several planned ones. Management reconstructed the division of tasks, and sales processes. Also, the incentive program of salespeople was changed. Formerly, salespeople were rewarded on the amount of revenue they generated from their customers. If somebody had a long lasting customer relationship with, for example, Nokia, and the customer had to invest in the year 2000 and the EMU modifications of their legacy systems, the salesperson could rely on a steady income without a need to put much effort into customer acquisition or even retention activities. This old reward model and the existing market situation did not motivate one to work more actively at the "customer front end".

Another emergent change event was top management turnover. All members of the company's top management have during the past 2 years left the company. Their positions have been replaced with new people – most of them have come from the acquired companies. However, this personnel turnover has been seen to have speeded up the transformation process, although some failures in recruiting new members to top management had some opposite effects.

The planned organizational change has had an effect on salespeople's job descriptions. Salespeople do not any more manage the recruiting of new experts. This was delegated to the human relations management department. Salespeople have now been urged to be more active contacting new and old customers. They should generate new contracts with both new and old customers instead of solely relying on the old customer base and long-lasting contracts. However, the strengthening of old customer relationships was an important aspect, too. This enforced the new partnership strategy. Salespeople have to more openly store information on all their customer contacts into the new CRM database. This is due to the fact that new sales pipeline reporting requires both numerical data and probability value data of offers on stock. If the

pipeline report does not show satisfactory estimation of future sales, the salespeople are not awarded an advance payment of future bonuses. It is estimated that 70% of all salespeople are going to commit themselves to the new, planned relationship marketing strategy, and will become motivated to act accordingly. However, it is estimated that the other 30% will leave the company sooner or later.

A new division of tasks and changes in job descriptions, especially task division between salespeople and sales assistants, was a planned change event. Earlier, sales assistants had the responsibility of managing both customer contracts and offers. Change in customer relationship strategy, change in the way customer contacts are managed, and change of incentive programs are the most important planned agents for changes in the individual salespeople's job descriptions.

The introduction and implementation of the new CRM system was itself a major change event, a purposeful and planned managerial action to support the process of becoming customer-focused organization. The salespeople as well as the managers received initial user training already in the late 2002. However, due to some delays in finalization of the pipeline report, most of the users could not start using the system until the spring 2003. However, in September 2003 all but one of the business units had the system in full production use. In September 2003 the sales management relied in its sales forecasting fully on the automated sales pipeline reporting.

Nowadays Tieto-X has to take a bigger share of the business risk involved in partnerships with customers. Customers' buying power has increased and they demand that more risk be carried by the service vendor. The operational data store of the CRM system has now become the only data store where all transactions about customer relationships are stored. This helps in managing the customer relationship in the times of increasing customer buying power.

4. Implications

Our analysis shows that in our case organization the management had made a decision to change the company's business strategy from product/service-oriented to a customer-oriented one. This finding offers support to our framework and to the results of previous studies, which indicate that in order to succeed a company should first change its strategy to become customer-focused before implementing a CRM system. However, the change of strategy had major effects on CRM processes. Before we entered the field, the management had already taken several actions to manage the change. They had reorganized the sales organization to become more customer-focused. Each customer had a dedicated salesman. Particular customer segments had been allocated to each salesperson, too. The company had identified the key business processes related to sales and customer relationship management.

One way of managing the change of processes was the introduction of a new incentive program. Another key element was the implementation of the new CRM application. All these changes culminated in changes in employees' job descriptions and division of daily tasks anew. Tieto-X did succeed in transforming the organization and the processes to become customer-oriented. Our findings give support to our overall framework that to succeed in a CRM effort, one should also change the processes to produce CRM value - at the same time there is an effect on the individuals in terms of changes in job descriptions and division of tasks. The CRM system was, in our case, an enabler to the new approach to manage sales activities and other transactions on the customer frontline.

In the case company, change has evolved to a large extent the way Rigby, Reichheld and Schefter [26] have suggested it should evolve. The relationship marketing strategy was adopted first. Thereafter the processes of sales and customer contacting have been changed. A new technology – the CRM application – has been implemented only after the reengineering of key processes was started. Moreover the change process is clearly a teleological one [30]. The introduction of the relationship marketing strategy was a planned goal stated by the management. The change process, which was initiated after the goal specification, was an action to reach the end state: a customer-focused organization and "a way of doing things".

The emergent factors decline in demand for services and intensifying competition, were the major agents for more change processes. In this respect our findings are similar to those of Chin et al [7]. As Orlikowski [23] notes in her paper on the implementation of a new incident tracking support system in the customer service department at Zeta: "Changes in the environment put pressure on management to improve the customer service, but it was also management's receptivity to, and appreciation of, those changes that ultimately determined the precise organizational response". We found in our case company similar management reactions to exogenous events.

If we would observe the life-cycle of Tieto-X from "the outside", we could argue that the company is actually in the same evolutionary trajectory as most IT companies are when they are facing the same external threats: a challenging decline in demand and at the

same time increasing competition. If we look at Tieto-X from the shareholders' perspective, the urge to grow steadily and the need to satisfy the expectations of investors, is a major change agent, too. Organizational change in our case is clearly a teleological process, but it may also be seen as evolving inside another process, which is an evolutionary one.

Change in an organization is a multifaceted phenomenon [16]. We found both emergent and planned change events on all three observational levels: environmental, organizational and individual. Many change events from different observational levels might at the same time have an effect on the outcome of the change process. One has to take into account that the length in time of different events might differ from each other. We could speculate that if an emergent change event like top management turnover had caused the project leader of the CRM implementation project, or as we could call him the "champion", to leave the company, this might have endangered the success of the CRM project accordingly. Another example could be the effect of changes in competitive position (emergent environmental change event) to the need for change in product portfolio (planned organizational event). To merely look at a single event e.g. that of the CRM system implementation process, is an extremely narrow view to hold.

We have learned from our empirical investigation that if one tries to manage change, one should first identify the change events, which are "manageable" in the first place. In our case the management reacted to emergent change events by several planned actions: growth through mergers, new product development, new incentive programs, and the decision to implement a CRM system. One should understand that at the same time as one is trying to manage planned change of selected entities, there are ongoing emergent change processes. These processes might have consequences, which affect the events being "managed". The management of change in our case company was successful. It succeeded in forming a customer-focused strategy, transforming the core processes to support this strategy, implementing a CRM system, and getting it into production use. The CRM system also succeeded in supporting the new division of tasks and management of customer transactions. When we asked the project manager what were the main "tools" used by the management to make the change happen, i.e. teach and coach salespeople to work in a more customer-oriented way, the answer was: "Firstly, we changed the incentive program; secondly, sales managers now can use the sales pipeline report as a tool to show the salespeople how active their customer contacting has been and also use the report as a tool to follow up actual sales versus estimations; thirdly, we expect that not everybody will change their way of doing their work and this will lead to a natural turnover of sales personnel". This answer supports the findings of previous literature.

Our results, which suggest focusing on change events from several observational levels, receive support from the findings of the extraordinary case study of "The Colorado Department of Revenue" [3], where, as in our case, the initial change agent was to become customer-centric. However, even though two of the cases in the study were successes, the third one failed to align business strategy (organizational event) with IT infrastructure, and at the same time lacked proper project management (individual event).

We do recognize that our research is limited in focusing on only one case. It was out of the scope of this research to investigate the CRM success from the customer's perspective. Research in the ability of a firm to produce true CRM value to both customers and the company itself should be supported. We suggest that future research would refine our CRM success framework and validate its relevance through a more positivist approach.[1]

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A Design Science Approach to Investigating the Piloting of Customer Relationship Management

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ABSTRACT

Customer relationship management (CRM) initiatives have emerged in a form of strategic and high priority projects in many organizations, but risks and rewards are equally high. One avenue of reducing risk is to apply piloting. In this empirical research we investigate whether the piloting of CRM has a role in decreasing implementation risks. We use design science approach in analyzing our findings, which indicate that the final outcome of piloting – contrary to what management may expect - can even raise resistance to CRM. Further, our findings indicate that CRM has a role in organizational policy-making and can cause power shift from one organizational entity to another.

INTRODUCTION

Given the high cost of acquiring new customers, companies are stepping up efforts to keep existing customers (Almquist et al. 2002), and are increasingly embracing the promise of customer relationship management. Organizations that effectively use a CRM business strategy are likely to emerge as market leaders, but risks and rewards are equally high (see the Gartner report in Starkey and Woodcock 2002). The high risk of failure has motivated researchers to study CRM success (Yu 2001; Abbott et al. 2001; Bose 2002; Fjermestad and Romano 2003; Croteau and Li 2003; Wikström 2004; Bhatia 2005).

The risk involved in IT implementation has been covered in many research projects (Lyytinen et al. 1998; Markus 2004). Markus (2004) has suggested that one avenue of reducing risk is to apply "prototyping" techniques. The goal of reducing risk of failure may be for a company the main motivation to rely on piloting, but there might be other motivations: the fear for resistance, the need for gaining organizational commitment, and the uncertainty which surrounds the whole concept of CRM. In order to get insight into the phenomenon of piloting CRM, we used design science approach in analyzing the data collected from one case company. Our first research question was: why do companies adopt piloting before a CRM implementation project and what are their primary expectations? Our second research question was: what is the outcome of piloting and to what extent piloting may reduce CRM implementation risks?

In the next section we introduce and define the core concepts of customer relationship management, CRM success factors, piloting, prototyping, and finally design theory as an approach in information systems research. Thereafter we represent our case and explore data gathered from a company called F-Bank (a pseudonym). Then we evaluate the CRM prototype, which was built in F-Bank. Finally we report our findings and their implications relevant to both academics and practitioners.

LITERATURE REVIEW

Customer Relationship Management

The concept of customer relationship management (CRM) is based on the relationship marketing paradigm according to which "marketing is to establish, maintain, and enhance relationships with customers and other partners, at a profit, so that the objectives of the parties involved are met. This is achieved by mutual exchange and fulfillment of promise" (Grönroos 1994). The utilization of information technology in supporting various relationship marketing activities has led to the formulation of the concept of customer relationship management. We define CRM as the bundling of customer strategy and processes, supported by the relevant software, for the purpose of improving customer loyalty and, eventually, corporate profitability.

CRM Success Factors

According to the account of problem areas in CRM success Rigby et al. (2002) list four problem areas out of which two, "the implementing of CRM system before a business strategy has been created" and "rolling out CRM before changing the company's organization", relate directly to organizational change issues. Corner and Hinton (2002) examined the implementation risks and found that politics and vested interests, the need for mobility, and inadequate funding were the most common risk categories. To avoid the risk of failure, Colgate and Danaher (2000) point out the importance of internal marketing and employee empowerment, profitable target segments, a business strategy emphasizing service, sufficient levels of involvement, high experience or credence qualities, and the ability to calculate relationship performance. Croteau and Li (2003) have constructed a CRM research model, where they as critical success factors include operational and strategic perceived benefits, top management support, technological readiness, and knowledge management capability. Plakoyiannaki and Tzokas (2002) maintain that the lack of learning and market orientation, integration, and direction capabilities may explain CRM failure. Resistance and usability have been found critical for CRM implementations to succeed, too (Fjermestad and Romano 2003).

Piloting vs. Prototyping and Piloting as a Research Method

Piloting involves innovation and testing of this innovation with people, i.e. with its potential users. According to Krcmar and Böhmann (2005), pilot projects of IT-based innovations are a particular type of design-oriented research. They aim at understanding the preconditions for implementing socio-technical systems in a field setting and the effects on their context of use. Piloting may be seen as a research method related to both design science (see Vaishnavi and Kuechler 2005) and action research (Schwabe and Krcmar 2000). Järvinen (2005) sees action research as one approach in design science. Markus (2004), who formulated a technochange lifecycle model, maintains that an essential part of a good technochange process is prototyping, where both the technological solution and the organizational change should be prototyped together.

Winograd (1995) has identified four different types of prototypes: *rough hand sketches and scenarios* help the researcher to explore a large number of possibilities for a program; *low-fidelity prototypes* give users a sense of the dynamics of a program without having to build a functional

version of it; *programmed facades* can be built on the computer using prototyping tools and may mimic some illustrative aspects of the functioning of the intended program; *prototype-oriented languages* are very close to full-fledged programming languages that are designed to support the prototyping process.

In our case the piloting of a CRM system may be seen as a level-three type of a pilot project (see Schwabe and Krcmar 2000). First the needs of the sales, marketing and customer service functions for a new CRM system were analyzed. Next a CRM prototype was developed. This prototype was then implemented for the use of a pilot group and evaluated in terms of its capability to better support the relevant CRM processes. Further improvements to the prototype were executed in order to enhance its service and applicability to the organizational context.

Design Science as a Method for Studying the Piloting of CRM

Design research involves the analysis of the use and performance of designed artifacts to understand, explain and to improve the behavior of some aspects of information systems (Vaishnavi and Kuechler 2005). Design theory concerns both how to undertake the building of an artifact and what the artifact should look like when built (Gregor 2002). Vaishnavi and Kuechler (2005) represent a general methodology of design research (Figure 1). In their model all design begins with *awareness of a problem*. *Suggestions* for a problem solution are abductively drawn from the existing knowledge/theory base for the problem area. An attempt at implementing an artifact according to the suggested solution is performed next. This stage is shown as *development* in the diagram. Partially or fully successful implementations are then *evaluated*. *Development, evaluation* and further *suggestion* are frequently iteratively performed in the course of the research (design) effort. The basis of the iteration, the flow from partial completion of the cycle back to *awareness of the problem*, is indicated by the *circumscription* arrow. *Conclusion* indicates termination of a specific design project.

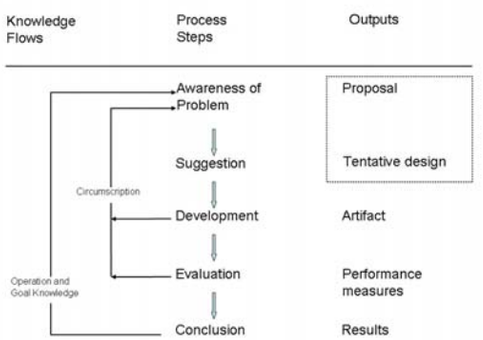
We chose to apply the design research approach because "it addresses important unsolved problems in unique or innovative ways or solved problems in more effective or efficient ways" (Hevner et al. 2004). We do not claim that the construction of a CRM system prototype would be a unique innovative problem today. However, based on our review of CRM risks, we do maintain that more research is needed to increase CRM implementation success.

RESEARCH SETTING AND METHODOLOGY

We selected F-Bank as our case because we had the opportunity to conduct participatory research and act in the piloting as both researchers and consultants. F-Bank is an independent privately owned investment service company. F-Bank's operations are divided into three business units, which serve both institutional and private clients: Asset Management, Markets, and Corporate Finance. F-Bank has a staff of 290 employees and its turnover in 2004 was 59 million euros.

We chose to conduct a single case study "which focuses on understanding the dynamics present within a single setting" (Eisenhardt 1989). After constructing a research protocol, we gathered data of organizational events related to both the construction of the CRM prototype, and the process of evaluating the prototype in the organizational context. We used documents extensively and utilized our own side notes. A total of 5 interviews lasting from 60 to 90 minutes were conducted, recorded and then transcribed. We interviewed members of the business management and the CRM project group. We asked questions related to the expectations of the piloting, the piloting process itself, and the outcome of the piloting.

Figure 1. General methodology of design research (Vaishnavi and Kuechler 2005)



ANALYZING THE PILOTING PROJECT FROM A DESIGN SCIENCE PERSPECTIVE

Awareness and Relevance of Problem

F-Bank had recently gone through a major reorganization, wherein the separate daughter companies were merged to F-Bank. There existed three separate customer databases and as the new organization was transformed, awareness grew that F-Bank needed a centralized customer database. The goal was to build a new CRM system and integrate it with the customer master database. The new customer-oriented business strategy was another motivating factor. Based on feedback data collected from the customers and the internal sales and customer service organization, a need to better manage customer relationships had become evident.

Knowing of previous CRM failures both at F-Bank and at other companies, selecting a piloting approach evidently was a search for a solution to a relevant business need in a more effective or efficient manner (Hevner et al. 2004). However, our perspective was that F-Bank first needed to align customer relationship management strategy with sales, marketing and service processes before implementing a CRM application or even piloting it (see Wikström 2004). Therefore our first purposeful intervention was the proposition to define all major sales, marketing and customer service processes.

F-Bank's decision makers were aware of the current literature on CRM risks: our second intervention (a request of the project manager) had been the sending, to both the CEO and the CRM project manager, of some academic and managerial literature on both CRM risk issues and CRM opportunities (the papers sent were: Bhatia 2005; Goodhue et al. 2002; Rigby et al. 2002).

Suggestion for a Solution

Apart from the need of reducing risk of failure, we observed several other motivations for the piloting: the potential need for organizational changes; a need for a method to ensure that relevant CRM issues would be covered in the implementation; the desire to set the expectations of the new CRM by business units to a "realistic" level; and the strive for getting more and better business intelligence and analytical data of customer purchase behavior. The scope of the piloting project included the construction of a CRM system prototype, in which the customization features of Microsoft's CRM program were utilized.

Development of the Artifact: A CRM Prototype

The piloting project extended over four months. In the definition phase altogether 9 project meetings were held, one with each business unit and their sub-units. This phase was conducted according to general CRM needs definition guidelines (Starkey and Woodcock 2002; Chen and Popovich 2003; Bhatia 2005). First the concept of "customer" of each business unit was defined. Secondly the relevant customer segments of

each business unit were analyzed and defined. Finally the servicing model of each customer segment was explicated. As a result, customer relationship types, their segmentation strategy and the respective customer care strategy were documented.

The next step was the analysis, definition and documentation of the core sales and service processes of each of the three business units. As a result *institutional asset management* chose to describe what they called the "sales driven sales process". *Customer service* unit chose to describe their "lead process", and *capital markets* unit chose to describe their "daily sales process". At this time *corporate finance* business unit had decided not to invest more of their time in further planning and therefore their sales processes were not described in more detail.

We had, together with the F-Bank's project manager, one-to-one meetings where the functionality of the CRM prototype was refined. Altogether three customization cycles were executed. The prototype was customized in terms of the number and attributes of various data fields, form lay-out, search and scrolling grids, and most importantly the sales process workflow logic. The purpose of the construction of the workflows was "to demonstrate, whether the CRM processes could in fact be automated and in this way improve their efficiency" (Hevner 2004). The prototype resembled "a programmed façade" (Winograd 1995), but it was a fully functional customized version of the Microsoft CRM product, which could be further cycled through iterative phases until full functionality for production use would be achieved.

Evaluation of the Piloting

As a result of the piloting, the expectation that the main importance of the new CRM system would be in forming a centralized customer repository, turned out to be wrong. During the piloting process, the project group members realized that the major achievement was the identification and description of sales and service processes. This had never before been accomplished by any of the business units. It became evident that what CRM could bring to F-Bank, was IT-assisted support for these processes. As a result of piloting, awareness grew of what a more systematic way of conducting sales work along the newly described sales processes would actually mean to the users: their work practices would need to change; more information of sales tasks and activities would be documented in the CRM database and this would shift power of managing customer relationships from salespeople to the company itself.

Piloting acted for the IT department as a tool for organizational policy-making: piloting increased business unit commitment to the CRM implementation and ensured that future implementation would not be driven by IT alone. The CRM prototype highlighted the importance of accurately defining the owner of each customer relationship. Customer ownership was the basis for incentive allocations. The prototype made clearer to everyone how its utilization would increase the transparency of customer and pipeline information across users and business units.

DISCUSSION AND CONCLUSIONS

We have learned that the final outcome of a piloting project may be very different from the initial expectations. As a result of our exploration, several new findings emerged: the role of piloting in organizational policy-making or as a factor in power shift from users to the company itself; the effect of CRM implementation to salespeople's work practices; the role of piloting as a change agent. The prototype brought forward many aspects of potential risks of failure in a future CRM implementation including the potential effect on the incentive policies. Afterwards the board of directors at F-Bank decided to proceed to the final CRM implementation in the fall of 2005. Implementation start-up was, however, later postponed due to an actualized risk of failure: the F-Bank's piloting project manager had suddenly left the company.

Referring to previous research results on CRM success and risk factors our findings indicate that piloting may increase top management support to CRM through increasing overall understanding of "what CRM is all about" (Croteau and Li 2003). We found support to the notion by Rigby et al. (2002) that a company should first change the organization to become customer-oriented before rolling out a CRM solution. However, some new results came to light showing that piloting may potentially fuel political controversies between organizational entities: increasing transparency may reveal how effectively salespeople do their sales work; their results may be compared with those of others; and the power of an individual salesperson may decrease through the loosing of the ownership of customer relationships. Users' resistance to CRM may therefore increase as a result of piloting.

For practitioners our research results indicate that a piloting approach is recommendable, if the company does not yet have a unified view of what CRM might bring about, especially on work practices and on better management of customer processes. For management piloting may act as a change agent and give an organization a direction where CRM developments should be focused on, but a program to support and continuously motivate users to change the way they work, is still needed.

Our design science approach focused on the construction of an artifact – the CRM prototype – and its use setting. In our case a programmed façade level of a prototype was enough to clarify the process oriented functionality of a CRM application and to show how the application of workflow functionality might affect present work practices. For future research it would be feasible to investigate what level of a prototype is capable of bringing the research cycle to a saturated level. If we had not participated in the piloting project ourselves, important observations on organizational change events might not have been revealed. Therefore we suggest that design theoretical research should extensively utilize action research approach.

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Human-centredness in customer relationship management implementation research: Towards a holistic perspective

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Abstract

The application of information technology (IT) to marketing through customer relationship management (CRM) software is growing rapidly, but the risk of failure remains high. We argue that research in CRM implementation success should focus more on human-centred issues. In this study we introduce a conceptual framework for a holistic view of humans in CRM and apply the framework to earlier research on CRM implementation. The results indicate that in most CRM approaches the prevailing conception of humans is monistic. The human being is seen as consisting of only one basic mode of being in that humans are conceptualized as objects without any mental and social qualities. We suggest that a more holistic approach to human beings as users of a CRM system would benefit CRM implementation.

Keywords: Human-centredness; CRM implementation; IS success

INTRODUCTION

At present, customer relationship management (CRM) is increasingly geared towards the development and utilization of information systems (IS), creating a new domain of interest regarding the human-centred use and development of IS. The concept of CRM is based on the relationship marketing paradigm according to which marketing is to establish, maintain and enhance relationships with customers and other partners, at a profit, so that the objectives of the parties involved are met. This is achieved by a mutual exchange and fulfilment of promises (Grönroos 1997). CRM extends the scope of relationship marketing by utilizing IS to take over the

labour-intensive aspects, thereby making it feasible for a wide range of very different customers. Fundamentally, CRM is a simple, intuitively appealing concept: attract new customers, know them well, give them outstanding service, and anticipate their needs and wants (Goodhue et al. 2002). However, according to many studies (Peppard 2000; Yu 2001; Bose 2002; Croteau and Li 2003; Fjermestad and Romano 2003) CRM may fail to produce the expected results. In the study by The Data Warehousing Institute (TDWI Industry Study 2000, p. 13) 41 percent of the organizations surveyed had been either "experiencing difficulties" or suffered a "potential flop". Furthermore, it has been shown that 55-75% of sales force automation (SFA) projects may fail (Honeycutt et al. 2005). Honeycutt et al. (2005) conclude that the benefits firms pursue by implementing SFA, are poorly planned, communicated and evaluated and/or are incongruent with the perceptions and goals of salespersons. Little is known about how human issues connect to the success of CRM implementations (Boulding et al. 2005). Payne and Frow (2005, p. 167) emphasize human issues as priority area for further research: "CRM can fail when a limited number of employees are committed to the initiative; thus, employee engagement and change management are essential issues in CRM implementation". Recently human factors have been included in models investigating CRM implementation success (Mendoza et al. 2007), yet research into the role of the human being in CRM has been predominantly quantitative and concentrated on the set of tasks of humans (Moncrief et al. 2006), and not on the qualities of the human being in doing her work. We argue that this is an area worthy of scholarly attention and our study is the first attempt to conceptually investigate how the qualities of the human being emerge in the existing CRM literature and how humans are considered crucial to successful CRM implementation. From a managerial point of view our study contributes to the understanding of the role and activities of humans in CRM implementation and presents human qualities as success factors.

CRM is defined as any application or initiative designed to help an organization optimize interactions with customers, suppliers, or prospects via one or more touch points - such as call centre, salesperson, distributor, store, branch office, Web, or e-mail - for the purpose of acquiring and retaining customers, or to carry out up selling and cross-selling to customers (see Goodhue et al. 2002). CRM takes a broad view of a company's customers by including both present and prospective customers as well as trading partners in the supply chain. To optimize interactions with these customers, it is necessary to collect, store, and manage data on every interaction, whether the data comes from a salesperson, a call centre, or the Web. CRM may include many applications, performing both analytical and operational functions (Goodhue et al. 2002). On the analytical side, a data warehouse typically maintains historical data supporting generic applications, such as reporting, queries, online analytical processing (OLAP), and data mining, as well as specific applications, such as campaign management, churn analysis, propensity scoring, and customer profitability analysis. On the operational side, data must be captured, integrated and stored from all inbound touch points, including the Web, call centres, stores, field sales, and ATMs. We focus on the users of operational CRM applications and sales force automation (SFA) applications in particular. Sales-oriented CRM applications refer to "the use of computer hardware, software, and telecommunications devices by salespersons in their selling and administrative activities" (Morgan and Inks 2001, p. 463). In our study the concept "user" refers to salespersons using IT in their selling and administrative activities. Furthermore, the concept user is used if we refer to a particular CRM role; we use the concept human being to refer to humans in general or collectively. We do acknowledge that our decision to study salespersons excludes many other user groups, such as the part-time marketers (Gummesson 1990), who in contrast to the full-time marketers (salespersons) do not belong to the marketing or sales department. We have also omitted helpdesk and call centre employees in an organization's service processes (Grönroos 2000). Accordingly, to increase the internal and external validity of our conceptual investigation, we decided to focus on one CRM user role, that of a salesperson.

Vast improvements in information and communication available to the individual salesperson through the proliferation of such innovations as laptop computers, cellular phones, and Internet have provided strategic advances affecting the everyday jobs of salespersons (Moncrief et al. 2006). To form a useful view of customers, companies should be able to portray customers in a way that allows collecting and utilising customer data in a holistic manner. To know what the customers are thinking, how they are behaving, and their relevant needs, a human-centred framework for understanding customers is needed. A skilled and motivated salesperson, who when performing her customer interaction tasks is willing and committed to rely on advanced IT in performing her job, would seem ideal for the required tasks: the user, the CRM systems developer and the CRM manager. It would be especially important for the salesperson to understand those human features conducive to selling the products; in particular, to understanding humans' behavioural features regarding their consumption habits (e.g., Chen and Wells 1999). For example, Mitchell & MacNulty (1981) report that humans tend to change as consumers. These changes may be better anticipated if the basic qualities of users guide the CRM persons' reflections. Hoffman and Novak (1996), for instance, argue that it is important to understand humans' spontaneous and mood-related online behaviour in addition to more normative and goal-directed behaviour involved in purchasing decisions.

It has been suggested that CRM implementation will succeed only after the organization and its processes - job descriptions, performance measures, compensation systems, and training programmes have been restructured in order to better meet customer's needs (Rigby et al. 2002). Furthermore, in order to "motivate" users to accept the introduction of CRM, top management support (Croteau and Li 2003) and commitment to change (Chen and Popovich 2003) have been mentioned as success factors. According to Chen and Popovich (2003, p. 685) "management must ensure that job evaluations, compensation programmes, and reward systems are modified on a basis that facilitate and reward customer orientation. After all, how people are measured will determine their behaviour". Corner and Hinton (2002) maintain that the user in her own right is a risk for CRM success: "salespersons are more difficult to manage as system users" (Corner and Hinton, 2002, p. 242). We argue that in these citations the perspective on humans is more oriented to the work of a manager than taking into account the qualities of human beings themselves. We define this perspective as *managerial*. Sometimes researchers (Corner and Hinton 2002; Rigby et al. 2002) have emphasised only one type of human qualities, for example, cognitive or emotional features. In Corner and Hinton (2002, p. 245) this human quality is jealousy or opportunism in the notion of "political infighting", and in Rigby et al. (2002, p. 108) this appears in the notion of "stalking, not wooing customers", i.e., a lack of sensitivity in the salesperson to the acceptable contact frequency perceived by the customer. All these examples suggest that the full potential of the human being has not been taken into account in CRM implementation success research. We argue that understanding humans solely in accordance with roles and purposes implies that humans can be defined in a given system in terms of division of labour or some other instrumental task, and thus, that humans are merely something existing in relation to particular instrumental needs and purposes (von Wright 1984, Buber 1993). In order to maintain effective and successful CRM, humans should be understood holistically. Attention should be paid to the fundamental qualities of humans with no explicit or implicit domination of the other elements, such as managerial belief systems that treat humans instrumentally. Therefore, in our study, users and their behaviour are seen in terms of indispensable human constituents, intertwining the accomplishment of instrumental roles and tasks and thus having a crucial influence on IS usage inherent in such roles and tasks.

As a research approach we use conceptual analysis as presented by Järvinen (2001). In this conceptual-analytical study we first analyse the roles and activities of the human being described in diverse operational applications of CRM. Second, we introduce a conceptual framework outlining the nature of human qualities in CRM implementation, and finally we apply

the framework as our lenses in the analysis of earlier research on CRM implementation in order to explicate the nature of the image of the human being in CRM implementation, and to make visible the variety and limitations of human-centredness in CRM. We conclude by discussing the findings and reflect on their implications.

RESEARCH APPROACH

Concepts are crucial to theory formulation, since they establish, first, the boundaries defining a theory's domain of interest, second, the key constructs and their relationships within that domain, and third, the values or contents those constructs can assume (Järvinen 2001). To establish sound concepts, we must carry out conceptual analysis. This is especially important in new emerging domains drawing on different research disciplines with varying underlying epistemological and ontological notions. The recent research on CRM applications is a typical example of such a new research area in which concepts are borrowed from one domain to another. To establish the concept of human-centredness within the domain of CRM, we carry out a conceptual analysis with a normative orientation drawing on earlier findings in CRM research. In this way our analysis emphasises the utility aspect of the concept of human being in understanding the underlying assumptions rather than representing different interpretations of human-centredness (cf. Järvinen 2001). Our aim is to bring to the fore and discuss the nature and qualities of humans in CRM theorization. We hope that the explications of the construct will facilitate further research and serve as a better foundation for development of CRM applications.

Research questions	**Research objectives**
1) What is the image of the human being in the context of CRM?	1) to explore the specific roles and activities of the human being in CRM
2) What would be a suitable framework for a holistic view of humans in CRM?	2) to develop a taxonomy relevant for understanding the nature and delineation of the human qualities in CRM implementation
3) To what extent does the existing literature on CRM implementation success take human qualities into account	3) to explicate the nature of the image of the human being in CRM implementation success, and to make the variety and limitations of human-centredness visible in CRM

In our analysis, we set the boundaries defining a theory's domain of interest by first defining the roles and activities of the human being in CRM. Secondly, we establish the framework for outlining the nature of the human being in the context of CRM. Finally we use this framework to analyse what kinds of human qualities there are within the domain of CRM. In this way we explicate the contents that the concept of human-centredness can assume within this domain.

To achieve our research objectives we first conducted an extensive literature search. Given the difficulty of confining CRM to specific disciplines, the materials are scattered across various journals. Marketing, business and management, and IT and IS are some common academic disciplines for CRM research (Ngai 2005). Consequently, the online database of Google Scholar was searched to provide a comprehensive list of the scholarly literature on CRM implementation success. Additional motivation to utilize Google Scholar was the fact that its search results include the number of citations of the respective articles and Google Scholar lists the articles in order of relevance based on both the words used in the search descriptor and the number of citations (Google 2008). We decided to include in our analysis articles which at the time of conducting the search had accumulated more than 20 citations. As our interest was to study CRM implementation and related success factors, the literature search was based on the descriptor, “customer relationship management implementation success”. The search resulted in a total of 33,000 hits. As the search logic of Google Scholar is based on both the relevance of the given search descriptor and the

number of citations (Google 2008), we then selected from the result set the first 100 articles for further analysis. The abstract of each of the 100 articles was reviewed to eliminate those not actually related to our research objectives. Only articles published in journals were selected. Conference papers, master's theses and doctoral dissertations, textbooks and unpublished working papers were excluded, as academics and practitioners most often use journals to acquire information and disseminate findings (Ngai 2005). Moreover, as our focus was on operational CRM, we excluded papers addressing analytical CRM like databases, data warehouses, and data mining. Enterprise resource planning (ERP) emerged as a major topic in many of the articles in the result set but these were eliminated, too, as our main focus was on the firm-customer interaction not the firm's internal processes. Finally, as the number of CRM articles according to their year of publication has been shown to have increased significantly since 1999 (according to Ngai (2005) 93 per cent of the total of articles from 1992 to 2002 had been published *after* 1999), we selected only articles published in or after 2000. As a result, 17 articles were selected for closer analysis. These and their numbers of citations are listed in Table 1.

Paper	**No. of citations of the article in Google Scholar as on 19/01/2008**
Bose, R. (2002). Customer relationship management: Key components for IT success, *Industrial Management & Data Systems*, 102, 2, 89-97.	62
Bull, C. (2003). Strategic issues in customer relationship management (CRM) implementation, *Business Process Management Journal*, 9, 5, 592 – 602.	21
Campbell, A. J. (2003). Creating customer knowledge competence: managing customer relationship management programs strategically, *Industrial Marketing Management*, 32, 5, 375-383.	46
Chen, I. J. and Popovich, K. (2003). Understanding customer relationship management (CRM): People, process and technology, *Business Process Management Journal*, 9, 5, 672 – 688.	42
Colgate, M.R. and Danaher, P.J. (2000). Implementing a customer relationship strategy: The asymmetric impact of poor versus excellent execution, *Journal of the Academy of Marketing Science*, 28, 3, 375-387.	75
Corner I. and Hinton M. (2002). Customer relationship management systems: implementation risks and relationship dynamics, *Qualitative Market Research: An International Journal*, 5, 4, 239-251.	29
Gefen, D. and Ridings, C. M. (2002). Implementation team responsiveness and user evaluation of customer relationship management: A quasi-experimental design study of social exchange theory, *Journal of Management Information Systems*, 19, 1, 47 – 69.	42
Payne, A. and Frow, P. (2005). A strategic framework for customer relationship management, *Journal of Marketing*, 69 (October), 167–76.	68
Peppard, J. (2000). Customer relationship management (CRM) in financial services, *European Management Journal*, 18, 3, 312-327.	141
Plakoyiannaki E. and Tzokas, N. (2002). Customer relationship management (CRM): A capabilities portfolio perspective, *Journal of Database Marketing*, 9, 3, 228-237.	37
Reinartz, W., Krafft, M. and Hoyer W. D. (2004). The customer relationship management process: Its measurement and impact on performance, *Journal of Marketing Research*, 41, 3, 293-305.	91
Ryals, L. and Knox, S. (2001). Cross-functional issues in the implementation of relationship marketing through customer relationship management, *European Management Journal*, 19, 5, 534-542.	71
Ryals, L. and Payne, A. (2001). Customer relationship management in financial services: towards information-enabled relationship marketing, *Journal of Strategic Marketing*, 9, 3-27.	43
Speier, C. and Venkatesh, V. (2002). The hidden minefields in the adoption of sales force automation technologies, *Journal of Marketing*, 66, 3, 98-111.	62
Wilson, H., Daniel, E. and McDonald, M. (2002). Factors for success in customer relationship management (CRM) systems, *Journal of Marketing Management*, 18, 193-219.	53
Xu, Y., Yen, D. C., Lin, B. and Chou, D. C. (2002). Adopting customer relationship management technology, *Industrial Management & Data Systems*, 102, 8, 442 – 452.	43
Zablah, A. R., Bellenger, D. N. and Johnston, W. J. (2004). An evaluation of divergent perspectives on customer relationship management: Towards a common understanding of an emerging phenomenon, *Industrial Marketing Management*, 33, 475-489.	50

Table 1. List of research papers reviewed

After collecting the set of articles for closer investigation, the full text of each article was reviewed and analysed. The analysis was carried out by first identifying aspects and topics related to roles

and activities of humans and the image of the human being. Thereafter, these human-related aspects were analysed according to the constructs of our holistic framework. In the following section we first present the image of the human being in the general context of CRM and introduce our research framework in more detail. Next we present our literature analysis in light of the research framework.

FRAMEWORK FOR A HOLISTIC VIEW OF HUMANS IN CRM

The definition of the operational CRM (Goodhue et al. 2002) explicates some of the most common roles and activities of the human being in the CRM context: the individual as a member of the company's sales organization (e.g., a salesperson) or as a member of the service organization (e.g., a call centre employee). As stated in the Introduction section, the concept of "user" in this study refers to salespersons using IT in their selling and administrative activities. Hence, we have omitted many other user groups like part-time marketers and employees of an organization's service processes. Moncrief et al. (2006, p. 55) point out that "customer relationship focus, technology, global competition, shifting customer preferences and demands, forced downsizing, increased competitive pressure, and other factors have contributed to altering the salesperson role – what salespersons do". According to Moncrief (2006) the activities of salespersons include Internet use, working on the web, checking e-mail, learning software, entering data on a laptop, collecting database information, and presenting with laptop. However, other activities may also be supported by computer use, such as planning selling activities, checking customer inventory, and making expense reports.

In their sales roles, human beings are often seen in terms of knowledge and communication (Zablah et al. 2004; Tanner and Shipp 2005). Zablah et al. (2004) introduce knowledge and interaction management as the two major sub-processes of the CRM macro level process. This emphasises the cognitive qualities of human beings, such as knowing. Whether they can articulate it or not, salespersons possess substantial amounts of knowledge about individual customers and their needs and preferences (Zablah et al. 2004). Knowledge management is seen as a process concerned with all the activities directed towards creating and leveraging the market intelligence that firms need to build and maintain a portfolio of customer relationships maximizing organizational profitability. Here interaction refers to any instance in which two active parties with the ability to exert influence upon each other, engage in an exchange of values. Many of the essential job functions of the salesperson require communication with the customer (Tanner and Shipp 2005). Buyer-seller interactions do not exist in isolation but rather occur within the context of an ongoing relationship (Grönroos 2000). The existing CRM literature suggests that interactions should be consistent, relevant and appropriate throughout a relationship's lifecycle (Khirallah 2000; Ragins and Greco 2003). Therefore the interaction management process is heavily dependent upon the human resources of a firm. Salespersons' ability to leverage their understanding of individual customers and human behaviour often has a substantial impact on the outcome of exchange episodes (Zablah et al. 2004).

Generally the various conceptions of the human being can be seen as different combinations of two main elements: the first element refers to *the number of the basic modes of being*, and the second element to *the structure of the basic modes of being* (Figure 1). The first element is based on the research results in Rauhala (1983). Rauhala (1983, p. 19) states that it is common to distinguish between monistic, dualistic, pluralistic, and monopluralistic models of the human being. For example, *monistic conceptions* are based on the idea that the human being consists of only one basic mode of being. In general this one mode is matter. *Dualistic models*

consider that, in order to understand the human being two different modes of being must be presupposed (Rauhala 1983, p. 19). Usually these two modes of being are mind and body. Different conceptions based on a two-aspectual interpretation of the human being are quite common (Rauhala 1983, p. 19). In *pluralistic conceptions* it is presupposed that the human is actualised as many kinds of subsystems (e.g. vision, digestion, memory, and emotions), with their own structures and thus also relative independence. In this way the 'number of basic modes' is one method of categorizing different notions of the human being.

The present multidisciplinary research is often based on a pluralistic view: research on humans is focused on a certain subsystem in a particular context, for example, human information processing in requirements analysis (Barnard and May 1993), or development of trust in virtual teams (Jarvenpaa et al. 1998). A limitation of the pluralistic conceptions is the difficulty in gathering dissimilarity and evincing arguments for the human being as a whole. An attempt has been made to resolve this limitation within the *monopluralistic conceptions*, which assume that *the human being is actualised in more than two modes of being and that these modes are essentially different*. Without the simultaneous existence of all of the modes it is not possible to consider a creature as a human being (Rauhala 1983, p. 19-21).

In order to be able to define a holistic notion of the human being, the number of basic modes of being must be supplemented with *the structure of the basic modes of being* (Wilenius 1987, 1989) to form a comprehensive framework. The structure of the basic modes of being refers to the different basic qualities of the human being. Regarding these basic qualities Wilenius (1978, p. 10-14) states that the human being can be seen as a physical system, an organic system, a mental-psychical system and both a social and cultural system creature. *Physical system* denotes that the structure (e.g., bones and muscular system) and movements of humans can be explained, for example, by the laws of mechanics. From this perspective the human being is often conceptualised in terms of ergonomics. A special feature of the human *organic system* is a well-developed central nervous system, which has implications for human behaviour in terms, for instance, of technophobia. Incorporated in this negative affective state is a strong physiological component, which emerges as tension and arousal of the central nervous system. This state may be experienced without the necessity for conscious, rational appraisal, i.e., humans may experience anxiety tacitly. The human being as a *mental-psychical creature* is a being with unconsciousness, consciousness and self-consciousness. A classic way of delineating conscious activities is to distinguish between thought, emotions and will. Correspondingly, a common way of conceptualising humans is to build the usually underlying definition of the human being on the basis of thinking and other conscious activities. Frequently the modern notion of the human being is intellectually biased: humans are conceived of as primarily perceiving and thinking creatures that plan their actions and circumstances.

Further, according to Wilenius (1978, p. 13), the *social and cultural* are also structures of the basic modes of being. Here the human being is seen in a particular relationship to its environment. In other words, social is a quality of an individual but the nature of this characteristic leads humans to create diverse interactive human networks and social structures. A more recent view is expressed by postmodernism, which assumes that humans are not determined by instincts, laws, needs or systems. Instead, human behaviour is open-ended, changing and creative. Both human nature and knowledge are created and established in the very acts of humans living. This also means that human behaviour can only be understood by 'reading' the broader context of life and history within which the behaviour occurs. The definition of the cultural mode of being includes the social mode of being. These two modes are often seen as intertwined in delineations which apprehend the cultural mode as manifest in social life as symbols, heroes, rituals and values (Denzin 1992, Hofstede 1997). A noteworthy implication of the holistic viewpoint for analyses of CRM is that all humans possess features of the physical, organic, mental, social and cultural modes of being.

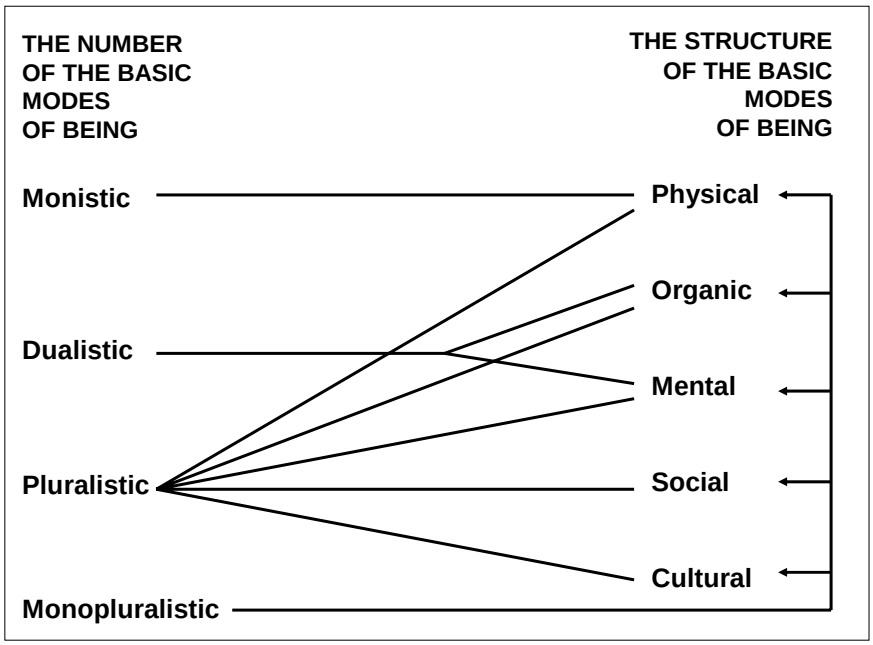

Figure 1. Framework for a holistic view of humans in CRM

These two elements i.e., the number of the basic modes of being and the structure of the basic modes of being together form the basis for our conceptual framework for outlining the multiplicity of the human being as a whole (Isomäki 2002, p. 27-38; 2007). In the framework (Figure 1) *dualistic is connected to organic and mental*, since it is seen to be the most common case according to Rauhala's (1983) analyses. *Pluralistic and monopluralistic* both refer to all five basic modes of being, but *they differ in that pluralistic notions do not perceive connections between the different basic modes of being, whereas the monopluralistic does see them as connected*. In this way it is possible to define a holistic notion.

HUMAN QUALITIES IN RESEARCH ON CRM IMPLEMENTATION SUCCESS

In this section we apply the human-centred framework for a holistic view of humans in the CRM implementation success literature, and demonstrate the human qualities found in the research papers analysed. The results of our analysis have been summarized in Table 2. In Table 2 we first describe the various human aspects found in a given paper. These aspects have been represented in their original form. In this way we want to illustrate the prevailing image of the human being in the respective paper. Thereafter we have given our own interpretation of these aspects and to which human qualities they refer. Finally, we have assigned the notion of the number of the basic human modes of being and the structure of the basic human modes of being present in the corresponding CRM research paper. The following is a more detailed account of our analysis.

Bose (2002, p. 89) proposes a system development lifecycle that highlights the "aspects unique or critical to CRM" and concludes with some thoughts on long-term CRM implementation success. In Bose (2002) the role of the human being is presented either as a user of a CRM system to assist her in the interaction with the customer, or as a decision-maker, who should make decisions on the basis of the customer information gathered at the interaction points. The

human being is conceptualized as an intermediary between the CRM system and the customer. Humans are conceptualized as "customer contacting channels", where the function of the human being is to record any necessary transactional and non-transactional information on the customer. The only human-related aspect, which Bose (2002, p. 94) explicates, is the notion that "often intelligent IT projects are doomed because of people problems". According to Bose (2002, p. 94) these may include the following aspects: people have cognitive constraints in adopting intelligent systems and people believe they get more support by talking to other people. In Bose (2002) the IS-user relationship is seen as functional: the action of humans is seen as determined by the management decision to implement CRM and management's need to modify firm processes to become more customer-focused. The role of human emotion is to facilitate these processes. A functioning relation between humans and CRM system is thus acknowledged, but does not include any significant features originating from the mental, social or cultural human modes of being. The notion of the "people problems" may appear patronizing. The human being is seen to have some cognitive qualities, but these are represented as preventing and not as promoting successful CRM implementation. The notion that "people believe they get more support by talking to other people" may refer to the need of a human being for peer support and in this respect reflects a social structure of the basic human modes of being. Humans and their behaviour are understood as purely physical/organic responses to the CRM system or only cognitive constraints in adopting systems. We may therefore conclude that in Bose (2002), a monistic/dualistic perspective prevails.

Bull (2003, p. 592) offers an analysis of a single case study of a CRM implementation where the results highlight that "implementing CRM requires effective leadership, sourcing, targeting and evaluation strategies". This study takes the perspective of the management and points out the importance of good leadership in guaranteeing successful CRM implementation. Ultimately Bull (2003) concludes that the implementation of the CRM system in the case company was a failure and describes how bad leadership neglected the full potential of "engaged and empowered sales engineers" (Bull 2003, p. 598). In this respect the study concedes the importance of some human qualities but the level of implementation success is evaluated against the capability of the leaders to train humans to understand "the full implications of CRM in relation to the business requirements" (Bull 2003, p. 597). This indicates that the IS-user relationship is seen as functional and the action of humans is seen as determined by facilitating the business processes. In this study there are some additional human aspects which relate to the selection of the implementation project team members and their attitudes towards the project: "despite initial training, the sales and marketing project team members still lacked knowledge of the full implications of CRM in relation to their business requirements. The project team was selected at random and this caused some discontent. Some of the excluded staff felt undervalued by senior managers. This resulted in fear of CRM that it was about efficiency or cost-cutting exercises, that CRM would replace or de-skill their knowledge and contributions to the organization and result in staff redundancies." (Bull 2003, p. 597-598). These excerpts further highlight the managerial attitude, which regards humans not in terms of their mental qualities like fear or their feelings of being undervalued, not by their qualities in relation to competencies needed in various implementation project tasks, but on the contrary regard humans defined solely by their functional roles. We can conclude that in Bull (2003), although some mental aspects have been pointed out, we cannot see any social or cultural aspects and hence the prevailing structure of the human basic modes of being is physical/organic. Furthermore, the number of the basic human modes of being is monistic/dualistic.

In Campbell (2003) the focus is on the firm's internal processes in creating customer knowledge competence. Campbell (2003, p. 375) suggests that for CRM to be successful, "changes are required in the way firms manage customer information internally" and discusses her research framework of customer knowledge competence in light of five case studies of firms implementing customer relationship programmes. Her research framework consists of four components, all involving humans. The first component a "customer information process refers to the set of

behavioural activities that generate customer knowledge pertaining to customers' current and potential needs for products and services" (Campbell 2003, p. 376). The second component "marketing-IT interface refers to the process by which marketing and information technology functions communicate and cooperate with each other". The third component "senior involvement refers to processes by which top management signals its support for the generation and integration of customer knowledge within the firm". Finally, the fourth component "the employee evaluation and reward system refers to process by which employee behaviour is aligned to the firm's goals of generating and integrating customer knowledge into the firm's marketing strategies". Campbell (2003) includes the last two components "because of their role in shaping the manner in which employees interact with each other to share customer information" (Campbell 2003, p. 377). The notions of employee interaction and sharing of customer information point to a social structure of the basic human modes of being. As a result of using her framework in analysing the five cases Campbell (2003, p. 381) concludes that "the marketing-IT interface is more effective when functional areas are integrated by joint committees or project teams". This further highlights a perspective on a social structure of the human modes of being. However, Campbell (2003, p. 382) reports that her research results indicated that "employee reward systems were revenue-based rather than behaviour-based". She does regard humans more as acting in the functional role of acquiring customer information than as mental creatures possessing cognitive qualities, which might assist in understanding and gathering information on what the needs and wants of a specific customer are. In Campbell (2003) the prevailing structure of the basic modes of being is organic/mental and the human being is conceptualized from a monistic/dualistic perspective.

Chen and Popovich (2003) explore the critical components that can enable (or hinder) the successful implementation of CRM initiatives and introduce a CRM implementation model that integrates the dimensions of humans, process and technology. In their account of humans as success factors, Chen and Popovich (2003) take the user as potentially opposed to any change. They stress the managerial view of a need for top management support and commitment to change "the way people do their work today". Chen and Popovich (2003, p. 685) suggest that "management must ensure that job evaluations, compensation programmes, and reward systems are modified on a basis that facilitate and reward customer orientation. After all, how people are measured will determine their behaviour". This notion illustrates a "stick-and-carrot" principle, which is seen as the driver for changing humans. The human being is seen only as a one-dimensional creature, as an instrument to be utilized by management in order to fulfil CRM goals. However, the human being is known to need adequate skills to use a CRM system, be motivated to adjust to the obvious organizational changes as the organization needs to become more customer-oriented, and is seen as adjusting her behaviour if compensation is increased in order to diminish her resistance to organizational changes. Still, there is in Chen and Popovich (2003) no evidence of taking the human being as a mental creature possessing various cognitive qualities, which would enhance the acquisition of information of customer relationships. The human being in this study is basically described from a monistic viewpoint and no social/cultural structures but rather physical/organic structures of the basic human modes of being are present.

Colgate and Danaher (2000) examine the effects which the implementation of a relationship strategy may have on overall customer satisfaction and loyalty. Specifically, they examine the implementation of a personal banker strategy as a means to developing customer relationships in the retail banking industry. Their results show that both positive and negative effects are possible and that the effects appear asymmetric. A strategy implementation rated excellent will raise overall customer satisfaction and loyalty more than if no such relationship strategy exists. Conversely, a strategy implementation rated poor results in lower overall satisfaction and loyalty among customers engaged in such a strategy compared with those who are not. In this study the human being has been cast in the role of a personal banker and seen as an instrument facilitating the relationship strategy of the bank. Colgate and Danaher (2000, p. 385)

reveal some human qualities that would in this context account for an excellent versus a poor performance by a personal banker by noting that "most important attributes for successful personal banker are being available for the customer, friendliness, fulfilling promises made to customers, and being flexible in meeting customer needs". However, the main success measure used to judge the personal banker's performance is how he/she has performed from the customer's point of view. Even though mental qualities like the feeling of achievement and trustworthiness have been explicated, the prevailing mode of the human being is physical/organic in that she has been instrumentalized in the role of a personal banker. However, as some mental qualities have been represented, too we argue that as a whole the human being in this research has been described from a pluralistic viewpoint and that a social (facing a customer over a bank counter) structure of the basic modes of being is present.

The objective in the case study by Corner and Hinton (2002, p. 239) is "to identify those variables that present risks to effective and successful implementation in the light of the operating relationships between the main actors in multi-channel CRM implementation projects". In light of the earlier literature on risks to IT implementation Corner and Hinton (2002) discuss eight sets of risk categories out of which two – system users as a risk category and politics and vested interests as a risk category – deal with human-centred aspects. The results of their case study (Corner and Hinton 2002, pp. 242, 244) did not support the proposition, that system users are a risk category in the sense "that users would be reluctant to support the project; that user interfaces would not have been designed to fit well with their working style; that implementation time would have been disproportionately long; or that no viable data would have been present in the system at its outset". However, the nature of the users (sales staff operating away from the office for most of the time) did present the problem "that the remoteness from each other meant that they had difficulty in sharing their relative success or problems with each other and the support staff whose job it was to help them". In Corner and Hinton (2002) the users are described as acting in a social context, where they feel the need to share their success in using the CRM and feel the need to give and get help from others. Furthermore, the users are described as having been instrumental in defining their own processes so as to keep these in line with the organizational culture. As another human-centred aspect Corner and Hinton (2002, p. 245) evince an example of how "political infighting may result in the failure to obtain committed support for a CRM implementation, and how a vulnerable system sponsor may risk the CRM implementation". In the case company a sales director declined to accept ownership of the implementation because of an ongoing conflict with another sales director from a different sales area. Politics and vested interests may be interpreted as evidence of humans resisting any change, wanting to maintain the status quo, and of a conservative attitude towards anything new. The human being is described as showing further mental qualities like selfishness and unwillingness to cooperate with colleagues whom he/she dislikes. In Corner and Hinton (2002) the human being is described from a pluralistic viewpoint. The humans responsible for the execution of the CRM implementation project hold positions within a sales organization and they are described in a social context of a sales team or group of colleagues sharing emotions of success. We can conclude that the structure of the basic modes of being is a social/cultural one.

Based on social exchange theory and applying a quasi-experimental design, Gefen and Ridings (2002, p. 49) study "whether responsiveness to user requests in real-world settings is a plausible cause of increased favourable user assessments of the correctness of the configuration and user willingness to adopt a CRM system". In this study the focus is on the user and the study is motivated by bringing to the fore the importance of gaining user approval of a CRM system, "because the users of the CRM are typically the organization's personnel who have contact with a large proportion of its clients and the revenue these clients bring, user approval of the way in which the CRM was correctly configured testifies to the ability of the CRM to increase these revenues through its support of client-oriented business processes" (Gefen and Ridings 2002, p. 49). In this study the researchers suggest that viewing the interaction between the users and the implementation

team as a social exchange, at sites where the implementation team is highly responsive, users will be more inclined to believe in the cooperative intensions of the team and accordingly to assess the CRM more favourably and to be more inclined to approve it. The data in the study support this suggestion and show that perceived responsiveness is associated with a more favourable assessment of the CRM system. However, the study implies that what users *perceive* as responsiveness, rather than *actual* responsiveness, is what directly has these effects. The perspective on users is a managerial one but the humans are not separated from the development of the CRM system and from viable interactions with IS designers. On the contrary in this study the interest is in what humans feel about the "configuration" of the CRM system and the users are studied in two different settings, which differ in respect to the designers' responsiveness to users. The focus is on the users' perceptual assessments of a CRM system, but the researchers do not explicitly study specific human qualities which might support the CRM approval. The users are conceptualized in a social team setting and the communication between humans as members of both sales and implementation teams is the main object of the study. We may conclude that in this research the prevailing mode of being is pluralistic/monopluralistic and the structure of the modes of being is a social/cultural one.

In order to help companies achieve greater success with CRM strategy development and implementation, Payne and Frow (2005, p. 168) introduce a conceptual framework for CRM. In the framework they identify five key cross-functional processes: a strategy development process, a value creation process, a multichannel integration process, an information management process and a performance assessment process. The only process in this framework to consider the role of humans is the multichannel integration process. In this process Payne and Frow (2005, p. 172) represent various customer interaction channels and categorize these channel options into six categories. Out of these categories the channel options "sales force", "outlets", and "telephony" are based on "physical contact" with a human being. However, the framework does not in any detail include descriptions of the roles or tasks of the human beings in this context. Nor do the authors assess qualities of the human beings, which would support successful implementation of the multichannel integration process. The failure to explore "people issues" is, however, explicated by the authors, too (Payne and Frow 2005, p. 167&174): "we emphasize the importance of CRM implementation and related people issues as an area in which further research is urgently needed". To conclude, we may note that in Payne and Frow (2005) the human being is conceptualized solely as a physical entity and hence the study illustrates a monistic mode of being.

Given its number of citations, the article by Peppard (2000) may be seen as a seminal work about applying CRM in the financial services industry. Peppard (2000) presents a CRM framework based on incorporating e-business activities, channel management, relationship management and back-office/front-office integration within a customer centred strategy. Peppard (2002, p.324) further illustrates the interdependent nature of the entities in his CRM framework. By introducing the CRM framework, he motivates the reader before embarking on any initiatives "to broaden the scope from just focusing on relationship management". However, the only entity in the framework, in which the human being has a role, is channel management. Peppard (2000, p. 319) points out that it is the customer's own choice which contacting channel she chooses and prefers and that "delivery channels must be viewed in terms of appropriateness to the task that the customer wants to perform". Although banks have utilized e-channels extensively, Peppard (2000, p. 320) note that "customers seeking to purchase high-value, complex financial products are likely to continue to value face-to-face interaction of the branch environment". The human being in Peppard (2002) is also conceptualized as a physical entity and hence the study illustrates a monistic mode of being.

Plakoyiannaki and Tzokas (2002) maintain that in order to avoid potential failures in CRM implementations, firms should identify and develop capabilities enabling the successful implementation of their CRM systems. The authors define capabilities "as the capacity to deploy resources by integrating knowledge, business processes and organizational learning" (Plakoyiannaki

and Tzokas 2002, p. 229). Plakoyiannaki and Tzokas (2002) then introduce five core capabilities to ensure successful CRM implementations: learning and market orientation capabilities, integration capabilities, analytical capabilities, operational capabilities, and direction capabilities. By analysing their capability framework, it is very hard to identify the human being in any of the explicated capabilities. Embedded in the representation of operational capabilities is the notion of "utilized and enhanced (human) resources" and "(human) skills developed at functional and administrative levels" (Plakoyiannaki and Tzokas 2002, P. 234). Moreover, the authors note that included in the "learning and market orientation capabilities" is the capability to "generate customer insight through learning and this requires information inputs, which are converted by the players involved to information outputs for sense or decision-making purposes" (Plakoyiannaki and Tzokas 2002, p. 233). To conclude, the human being is portrayed as a physical entity on an abstract level as a "player", who should be capable of gathering customer information and "converting" it into "information outputs" for decision-makers. This study, too exemplifies a monistic mode of being.

In their study Reinartz et al. (2004) conceptualize a construct of the CRM processes and its dimensions, operationalize and validate the construct, and empirically investigate the organizational performance consequences of implementing CRM processes. The focus in this study is on the customer-facing level of CRM processes, which then include the building of a single view of the customer across all contact channels and the distribution of customer intelligence to all customer-facing functions. The three primary CRM processes, which Reinartz et al. (2004) found to be significant in their construct are relationship initiation, maintenance, and termination. Furthermore, the authors investigated the significance of two moderating variables, namely organizational alignment and technology. Reinartz et al. (2004, p. 301) report as the main result of the study that "the implementation of CRM processes is associated with better company performance in two of the three stages" and that "the strongest effect is for relationship maintenance, followed by relationship initiation". The notion of the human being in this study is embedded in the moderator construct of "organizational alignment". In this construct the authors included training, rewarding of humans for building and intensifying relationships with customers, and "organizing people to deliver differentiated treatment and products to different customer segments" (Reinartz et al. 204, p. 304). The results of this study indicate that "there was a significant interaction between a CRM-compatible organizational alignment and both relationship termination and initiation" (Reinartz et al. 204, p. 302). The conception of the human being does not incorporate any human characteristics but on the contrary refers to humans as "objects of organizing", as physical objects. Hence, this study exemplifies a monistic mode of the human being. Furthermore, humans are seen to accomplish their tasks and activities in the CRM processes driven solely by incentives. The study does not acknowledge a human being as a cognitive creature, who would in her work feel the affordance of the CRM system.

Ryals and Knox (2001, pp. 534-535) in their study set out to address issues concerning marketing implementation through the application of CRM and related technologies and explore three issues that may enable (or hinder) the development of CRM in the service sector: the organizational issues of culture and communication, management metrics, and cross-functional integration between marketing and information technology. Related to the organizational and cultural issues in Ryals and Knox (2001) the human being is seen as a physical object of change. This is evident in the notion that "as companies attempt to re-orientate themselves around customers, individual employees will have to come to terms with changing cultural norms and organizational structures" (Ryals and Knox 2001, p. 537). Furthermore, Ryals and Knox (2001, p. 537) maintain that as "the individual employees are the building blocks of customer relationships, the measurement system should facilitate and reward customer orientation". Here the structure of the basic mode of being is social/cultural. This is explicated by a need for an organizational culture which is adaptive and responsive to change, and where the quality of the communication within the organization is seen as an important aspect of the change initiative. However, the communication is

predominantly seen as one-directional: from management to humans in order to "successfully communicate a change initiative" (Ryals and Knox, 2001, p. 537).

Ryals and Payne (2001, pp. 20-21) report on a study of the adoption and use of CRM in the financial services sector and explicate some barriers to successful implementation of CRM. The lack of skills of the user in building and using a CRM system is seen as one barrier, especially the lack of analytical skills during the implementation, "the skill of asking the right questions". The individual is seen as conservative and opportunistic in terms of her wanting to retain her proprietorial ownership of a customer, not wanting to share information about a customer relationship, and not wanting to cooperate with colleagues from different business units. Low awareness of the benefits of a marketing database was seen as an additional barrier: the users did not sense an affordance by the CRM system. The human being is described from a pluralistic viewpoint showing conservative and opportunistic behaviour and acting individualistically and indeed selfishly. The social and cultural structures of the human basic modes of being are also present in this study, which is evident in the notion of the opportunistic behaviour by business unit managers.

Speier and Venkatesh (2002) use identity theory to investigate salesperson perceptions associated with CRM technology rejection. This study investigates the individual characteristics which might influence a human's perception and use of technology on the basis of individual traits and dispositions toward the technology. Speier and Venkatesh (2002) include in their research framework items related to the various role perceptions of humans as well as items reflecting humans' perceptions of how technology might influence professional and organizational roles. The authors collected survey data from 454 salespersons across two firms that had implemented sales force automation (SFA) tools. The results indicate that immediately after training, the salespersons had positive perceptions of the technology. However, six months after implementation, the technology had been widely rejected, and salesperson absenteeism and voluntary turnover had increased significantly. Speier and Venkatesh (2002, p. 108) summarize that the results stem from growing lack of professional fit between the SFA tools and the salespersons: humans perceived that the SFA tools had a negative impact on and/or disrupted the sales process to the point that the system did not enhance their strengths as salespersons. Furthermore, humans were unable to accurately forecast their assessment of relative advantage in the context of changes the SFA technology would bring to their job. The items investigated represent plural conceptions of the human being. The study investigates how humans feel about their relationship with the technology; whether the technology is perceived by humans to either support their own competences or deskill them by the potentially embedded expert system features in the SFA. In this study the human's physical, mental and social/cultural modes of being are inextricably linked. Involvement and participation of the users as well as issues of voluntary (versus mandatory) use were investigated, too. Hence, we may conclude that the study by Speier and Venkatesh (2002) represents a monopluralistic conception of the human being.

Wilson et al. (2002) use the analytic induction method in examining factors which influence the successful deployment of CRM applications. Wilson et al. (2002, p. 206) argue that "user involvement in system design needs to be face-to-face, not just at a distance through the writing and review of specification documents". Furthermore, Wilson et al. (2002, p. 206) note that "the nature of the domain (CRM) required creativity in the definition of new processes, which was aided by the interactivity of face-to-face meetings". The authors emphasize the importance of involving users interactively in system design. The notion of the "creativity in the definition of new processes" portrays humans as willing to learn about their own work processes and refers to learning stressing both cognitive and social human features. This conceptualisation of users suggests that the relationship between users and designers as well as the IS-user relation is a reciprocal process, including characteristics typical of human behaviour. As a factor with limited support to the success of a CRM implementation Wilson et al. (2002, p. 208) address the issue of

cultural change, such as staff willingness to share (customer) data: “the project plan needs to address any requirement to change organizational culture, such as addressing staff willingness to share data, rather than leaving this issue until later or ignoring it”. This notion and the need for a company to “organize round customer” (Wilson et al. 2002, p. 206) both refer to the need for users to be flexible in changing their perceptions of ownership of organizational resources: customer knowledge. Underlying this notion in Wilson et al. (2002, p. 201) is the prevailing image of the human being “empowered and not controlled by systems”. In Wilson et al. (2002) we have identified various human qualities. The human being is seen as an active participator, an “actor” in the design work and not just as an instrument, “a user”. We argue that in Wilson et al. (2002) the basic human modes of being: physical, organic, mental, social and cultural are present simultaneously. Therefore, the human being is here described from a monopluralistic viewpoint and the social as well as the cultural structures of the human basic modes of being are present.

Xu et al. (2002, p. 442) represent concepts of CRM “from micro- and macro-perspectives” and give some CRM “implementation tips”. In the “personnel” section of their micro-analysis Xu et al. (2002) point out that in the process of a firm becoming customer-focused a CRM system will change the way information flows within a company. CRM involves more and better communication between a company and its customers, and also within the company itself. This entails a fundamental shift in the information flow within an enterprise, from quantitative data to qualitative data, “it is about integrating strategy, process, technology, and people in a comprehensive change management process” (Xu et al. 2002, p. 446). Xu et al. (2002) see that humans’ resistance to this change process is one of the major risks associated with CRM implementation. A training programme is seen as one of the solutions to this and also to let the end-users and “enthusiasts” become involved early in CRM implementation and “spark a grass-roots movement” (Xu et al. 2002, p. 447). In this study humans have been conceptualized as “resisters to change” and “objects of training”. The study identifies some mental qualities of humans in admitting that some humans may be “enthusiastic” about CRM. However, the prevailing image of the human being is that of a physical object which resists change and should be dealt with by training. We see in this study the monistic mode of the human being where the structure of the mode of being is physical.

Zablah et al. (2004, p.485) outline a framework that identifies “the key steps towards CRM success” and define CRM success as “a firm’s ability to efficiently build and sustain a profit-maximizing portfolio of customer relationships”. According to their framework the first step towards CRM success is specifying a relationship marketing strategy. The second step is to define the relevant CRM processes and process roles, as well as an allocation of responsibilities for process activities among humans and groups (Zablah et al. 2004, p. 485). Knowledge management and interaction management are seen as the two main CRM processes. The human being is conceptualized here in terms of her role and activities in a CRM process. The third step in the success framework is to assess the state of a firm’s CRM capabilities to ensure that the firm has the requisite resources to effectively execute the activities related to each of the CRM processes. Here humans are seen as one resource in addition to physical and organizational resources. The last steps in the success framework are enhancing existing processes and continuous monitoring, evaluation, and improvement of the processes. We may conclude that in Zablah et al. (2004) humans are conceptualized as physical objects, as roles in a process. There are no indications in their CRM success framework of any social or mental qualities of humans. Therefore, the basic mode of being is monistic and the structure of the basic mode is physical.

Paper	Human aspects found in the paper reviewed	Interpretation and description of the human qualities in the paper reviewed	Number of the basic modes of being	Structure of the basic modes of being
Bose 2002	Salespersons function as customer interaction points, as intermediaries between the CRM system and the customer. Users must be trained in order to understand the business process changes, which may be involved in a CRM implementation.	The main function of the human being is to record in the CRM system any necessary transactional and non-transactional information of the customer. Human beings are seen as "problems" for the successful implementation of a CRM system, because they have cognitive constraints in adopting intelligent systems. Human beings need support by peers.	**Monistic/dualistic**	**Mental/social**
Bull 2003	Good leadership is important in guaranteeing successful CRM implementation.	The implementation of the CRM system in the case company was a failure. This is suggested to highlight how bad leadership neglected the full potential of "engaged and empowered sales engineers". Leaders should train humans to understand "the full implications of CRM in relation to the business requirements". Some humans felt undervalued by senior managers. This resulted in fear of CRM that it was about efficiency or cost-cutting exercises, that CRM would replace or reduce their knowledge and contributions to the organization and result in staff redundancies.	**Monistic/dualistic**	**Physical/organic**
Campbell 2003	Employees' behaviour should be directed to activities which generate customer knowledge pertaining to customers' current and potential needs for products and services. Employees' behaviour should be aligned to the firm's goals of generating and integrating customer knowledge into the firm's marketing strategies.	Humans should interact with each other to share customer information and their behaviour in this direction should be rewarded accordingly.	**Monistic/dualistic**	**Organic/mental**
Chen and Popovich 2003	Top management should support the CRM implementation. The project champion should persuade top management for continuous change efforts. Management should show commitment to change job evaluations, compensation programmes, and reward systems.	A "stick-and-carrot" principle is seen as the driver for changing humans. The human being is seen only as a one-dimensional creature, as an instrument to be utilized by management in order to fulfil CRM goals.	**Monistic**	**Physical/organic**
Colgate and Danaher 2000	The main success measure to judge the implementation of a relationship strategy is the degree to which a personal banker "performs" from the customer's point of view.	The human qualities that would in this context explain an excellent versus a poor personal banker's performance are: being there for the customer, friendliness, fulfilling promises made to customers, and	**Pluralistic**	**Social**

		being flexible in meeting customer needs. The human being is seen as an instrument to enable the relationship strategy of the bank.		
Corner and Hinton 2002	All "players" in the implementation should be able to share experience of CRM use with others and have the sense of belonging to a social group. Political infighting may result in the failure to obtain committed support for a CRM implementation.	Remoteness from each other meant for sales staff that they had difficulty in sharing their relative success or problems with each other and the support staff whose job it was to help them. The human being is described as showing mental qualities like selfishness and unwillingness to cooperate with colleagues that he/she dislikes.	**Pluralistic**	**Social/cultural**
Gefen and Ridings 2002	CRM implementation team should be responsive to users' assessment of the correctness of the configuration of a CRM system.	Users will assess the CRM more favourably and will be more inclined to approve of it if they perceive responsiveness from the implementation team.	**Pluralistic/monopluralistic**	**Social/cultural**
Payne and Frow 2005	"Sales force" is categorized as a physical (as opposed to virtual, like Internet-based) channel option for customer contacting.	The human being is conceptualized as a physical object, as a customer contacting channel.	**Monistic**	**Physical**
Peppard 2000	"Face-to-face" interaction is valued by customers.	The human being is conceptualized as a physical object, as a contacting channel option for the customer.	**Monistic**	**Physical**
Plakoyiannaki and Tzokas 2002	"Players" should "convert" "information inputs" to "information outputs for sense and decision-making purposes".	The human being is portrayed as a physical entity on an abstract level, as a "player", who should be capable of gathering customer information and "convert" it to "information outputs" for decision-makers.	**Monistic**	**Physical**
Reinartz et al. 2004	Companies should stress to employees that CRM activities are important, structure their organizations to facilitate these activities, and reward employees for engaging in CRM-related activities.	The human being is seen as an object for organizational alignment, which can be achieved by training, rewarding of humans for building and deepening relationships with customers, and organizing humans to deliver differentiated treatment and products to different customer segments.	**Monistic**	**Physical**
Ryals and Knox 2001	As companies attempt to re-orientate themselves around customers, individual employees will have to come to terms with changing cultural norms and the way their performance is measured and rewarded.	The human being is conceptualized as an object of change and the failure to successfully communicate a change initiative and its implications for humans is seen to lead to failure of CRM implementation.	**Monistic**	**Social/cultural**
Ryals and Payne 2001	People lack skills in building and using the CRM system. People have low awareness of the benefits of a marketing database. Business unit managers are unwilling to cooperate with others. People are opportunistic.	Humans lack analytical skills in order to "ask the right questions" during the implementation phase of a CRM system. Humans want to retain their proprietorial ownership of a customer and fear of losing their power if they share their information on customers with others.	**Pluralistic**	**Social/cultural**

Speier and Venkatesh 2002	Salespersons may reject technology due to the lack of professional fit between the SFA tools and the salespersons.	Humans perceive that the SFA tools may have a negative impact on and/or disrupt the sales process to the point that the system does not enhance their strengths as sales persons. Humans may be unable to accurately forecast their assessment of relative advantage in the context of changes the SFA technology would bring to their job in the long run.	**Monopluralistic**	**Social/cultural**
Wilson et al. 2002	User involvement in system design needs to be face-to-face. The nature of the domain (CRM) requires creativity in the definition of new processes, which should be aided by the interactivity of face-to-face meetings with users. Organizational culture should address staff willingness to share data.	The first aspect emphasizes the importance of involving users interactively in system design and acknowledges their intellect and capability to address conceptions of design issues suitable to themselves. The second aspect highlights humans as willing to learn about their own work processes and refers to learning which stresses both cognitive and social human features. The third aspect suggests that users need to be flexible in changing their perceptions of ownership of organizational resources: customer knowledge, but it implies that users are free-willed and that they inherently understand the need for sharing data with colleagues.	**Monopluralistic**	**Social/cultural**
Xu et al. 2002	Employees' resistance to (change) is one of the major risks associated with CRM implementation.	The human being is conceptualized as an object of change.	**Monistic**	**Physical**
Zablah et al. 2004	"Organizational members" have "tremendous" impact on the knowledge management process. Employees' ability to leverage their understanding of individual customers and human behaviour often has a substantial impact on the outcome of exchange episodes.	The human being is conceptualized in terms of her role and activities in the two main CRM processes, which are knowledge management and interaction management processes.	**Monistic**	**Physical**

Table 2. Summary of the human qualities found in the CRM implementation success literature reviewed

DISCUSSION

Where the nature of the human being is delineated in the context of CRM, the human being is seen as an actor. This is inherent in the term 'user', referring to a human being who uses computers. Thus, the basic human modes of being are understood as active elements through which the human being is relates to IS. According to this active view, the different basic modes of being each to some extent contribute to a continuum of an active process within which the human being as a whole is active with the system (Isomäki 2002, p. 38-43). This underlines three notable characteristics in

human action. First, the hierarchical nature of the basic human modes of being is also active in nature: within human action the different modes interact with each other. Second, in human action there are both conscious or explicit and unconscious or tacit dimensions, both of which contribute to human experience. Third, the tacit and explicit dimensions are inextricably linked in the basic human modes of being. This is because humans are not conscious of all the aspects in their own experiences within their life situations. Therefore, it seems that in order to understand the active human being as a whole, we need to pay attention to both the interacting basic human modes of being and their tacit as well as explicit features in human behaviour (Isomäki 2007). This requires a holistic perspective on the human being as a user of CRM applications.

Cook and Brown (1999) offer conceptual means for transcending the subject-object dualism in regard to the IS-user relationship by defining a part of human action as involving static human features and another part as consisting of affordances emerging dynamically in an interaction. Dynamic affordance refers to the sense of affordance reflected within the relationships between characteristics of the world and issues of inherent concern to humans, such as the basic human modes of being. Usually they provide humans with the ability and need to be physical, organic, mental, social, and cultural creatures with their own will. However, the actual behavioural implications of the basic human modes of being emerge within the interaction between humans and ITs. In brief, dynamic affordance puts emphasis on the experience emerging from the basic human modes of being within the interaction of humans with the world. The structure of the basic human modes of being indicates the richness of that interplay and the emergent experience. Because this emerging experience is an implication of the (static) basic human modes of being, it is important to consider them as constituting elements of users' experiences in using CRM applications. Consequently, understanding human action requires insight into the different basic human modes of being and their implications within the dynamic affordances occurring between humans and IS as well as between customers and salespersons during the process of CRM.

While several studies have pointed out that we should know more about how human issues may be connected to the success of CRM implementations (Boulding et al. 2005; Payne and Frow 2005; Mendoza et al. 2007), there have been only few research projects, where in studying CRM implementation success the main focus has been on the human being (Gefen and Ridings 2002; Speier and Venkatesh 2002; Wilson et al. 2002). On the contrary, earlier research into the image of the human being in CRM has been functional or quantitative in nature and concentrated mainly on job functions and work activities (Moncrief et al. 2006). The functional image of the human being concentrates on formal job descriptions, external work tasks and humans' task productivity. Our study is the first conceptual investigation into how the qualities of the human being emerge in the existing CRM implementation success literature and provides both academics and managers with a conceptual framework for achieving a holistic view of humans in CRM implementation. Our framework identifies key elements within the holistic perspective. In this way we extend the frameworks for CRM by other researchers (Mendoza et al. 2007; Payne and Frow 2005). By applying the holistic framework we have outlined the nature of the human being in the context of CRM implementation success and demonstrated what kind of quality assumptions may be connected to humans in this context.

In eleven out of the seventeen articles which we analysed the basic human mode of being is either monistic or monistic/dualistic. This indicates that the prevailing image of the human being in the CRM implementation success literature is that of a physical object. The human being has been portrayed as an "intermediary" between the CRM system and the customer (Bose 2002), as a "player" in the firm's portfolio of CRM capabilities (Plakoyiannaki and Tzokas 2002), or as an "organizational member", with certain roles, who should execute certain activities pertaining to that role (Zablah et al. 2004). Furthermore, our results demonstrate that the prevailing image of humans as CRM system users is a managerial one. The managerial perspective regards humans not in terms of their mental qualities, like fear, or their feelings of being undervalued, not by their qualities in

relation to competencies needed in various CRM implementation tasks, but on the contrary solely by their functional roles (Peppard 2000; Reinartz et al. 2004; Payne and Frow 2005). In only three of the articles is the human mode of being pluralistic in that the human being has been shown to possess mental qualities like feelings of friendliness, jealousy, selfishness, opportunism, or the need for responsiveness (Colgate and Danaher 2000; Corner and Hinton 2002; Ryals and Payne 2001). At the same time humans are seen as social creatures, when e.g., salespersons' feelings of remoteness from IT support colleagues had a negative effect on salespersons' ability to share their feelings of success with support persons about using CRM (Corner and Hinton 2002).

According to the results of our analysis a monopluralistic conception of the human being is represented in only three of the eleven articles. In the monopluralistic articles users' own assessment of the correctness of the configuration of a CRM system is seen as a major factor for successful CRM implementation (Gefen and Ridings 2002), humans are admitted to have difficulty in assessing the relative advantage the use of CRM would bring to their job (Speier and Venkatesh 2002), or humans are involved interactively in the CRM system design, where their intellect and capability to address conceptions of design issues are acknowledged (Wilson et al. 2002). In these articles the holistic quality is revealed in several ways: first, a number of human characteristics is recognized; second, the human features are often seen to co-exist or intertwine with each other; third, these conceptualisations suggest that the relationship between users and CRM system designers as well as the IS-user relation is a reciprocal process, including characteristics of typical human behaviour.

Our study offers managers insight into how the various human qualities may be taken into account when in various CRM processes they assign the appropriate customer interaction and knowledge management responsibilities to humans. To succeed in CRM implementations managers should apply a holistic perspective on the human being as a user of CRM applications. We suggest that it would be hazardous for managers to understand humans solely in terms of distribution of tasks, in accordance with the roles and instrumental purposes. It is important to focus more on the individual and personal human qualities and make efforts to show humans the affordance of the CRM system in their daily practices.

We do concede that our research has limitations by concentrating on only one role within CRM, namely that of a salesperson. Future research should also take into account the managerial and executive roles as well as various other roles in customer service and part-time marketing functions. Furthermore, our literature review was limited to a selected number of articles, which, however, were the most cited in the scholarly literature. We suggest that in the future our holistic framework should be applied to the research of the human beings in CRM in addition to the functional approaches. We interpreted the text of the articles selected and first identified aspects related to humans in general and thereafter, identified potential qualities of the human being as they emerged from the text. In so doing we met some challenges in the interpretation work as in some of the articles the author/researcher introduced his or her own theory or framework. We did not evaluate the human-centredness in the article based on the quality of human-centredness of that particular theory or framework but rather on how the human qualities emerged from the text itself. Clearly a paradigm shift from quantitative to qualitative approaches is needed. Specifically, we suggest that researchers should make extensive use of qualitative methods, such as phenomenography (Marton and Booth 1997). In this way we could gain more insight into those tacit and sensitive dimensions of human beings which cannot be revealed by quantitative methods, because these are too reductive in nature.

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