



# **Understanding Organisation-CRM System Misfits and their Evolution:**

## **A Path to Improving Post-Adoption CRM System Usage**

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by

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## Abstract

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Since the late 1990s, organisations have been increasingly investing in Customer Relationship Management (CRM) systems to support their sales, marketing and customer service operations. Despite the significant growth in the acquisition of CRM systems and the widely accepted concepts of a CRM strategy, academics and practitioners repeatedly point to the high failure rates of CRM initiatives. Improving CRM systems' use can provide organisations with considerable benefits. However, limited research has been directed towards understanding post-adoption CRM systems usage behaviour. This is an important and topical subject at a time when CRM has edged past Enterprise Resource Planning (ERP) as the top application software investment priority and is expected to drive Enterprise System (ES) spending in 2013 and 2014. Using a multiple case study design methodology and Grounded Theory (GT) as the data collection and analysis technique, this process study strives to accomplish four primary research objectives. Firstly, it proposes a post-adoption CRM system usage process consisting of three phases (adaptation, exploitation, and benefits realization) and seven sub-phases (training assimilation, basic functionality discovery, basic functionality appropriation, advanced functionality discovery and appropriation, individual productivity enhancement, individual job objectives achievement, and company business objectives achievement) along which individual CRM system users can be placed. Secondly, it identifies ten misfit types (communication, supervision, user support, skill sets, commitment, functionality, data, strategy, organisation, and IT/business alignment) explaining for usage discrepancy among the user population. Thirdly, it looks at the evolution of those ten misfit types, and finds that their influence varies across the three post-adoption usage phases. For example, tool related misfits (e.g. functionality) appear early but tend to disappear by the end of the adaptation phase or the beginning of the exploitation phase, while company related misfits (e.g. communication of benefits, silo organisation) appear later in the exploitation phase, but seem to widen over time and significantly impact usage when not appropriately addressed. Finally, it identifies the organisation's leadership style as a potential root cause explaining for CRM system usage behaviour.

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## Chapter 1. Introduction

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### 1.1. CRM Initiatives: A Persistent High Failure Rate

Even though information systems (IS), finance, sales and marketing, human resources and logistics departments have acquired more than twenty years of experience in large business software implementation since the introduction of Enterprise Resource Planning (ERP) systems in the early 1990s, a majority of enterprise systems (ES) projects do not meet stakeholders' initial objectives (Nah, Lau and Kuang, 2001; Robey, Ross and Boudreau, 2002; Chen, Law and Yang, 2009). Customer Relationship Management (CRM) systems are no exception. The impact of CRM initiatives and CRM systems on the organisation's business performance is questionable (Kim and Mukhopadhyay, 2010). Academics and practitioners commonly report high failure rates (Chen and Popovich, 2003; Dimitriadis and Stevens, 2008; Foss, Stone and Ekinci, 2008). For example, Zablah, Bellenger and Johnston (2004) show that failure rates range from 35% to 75%. The authors attribute those failures to limited technology acceptance among end-users and assert that end-users' acceptance is influenced by the interrelationships and alignments among people, processes and technology. A high percentage of CRM projects fall short of management's initial expectations in terms of stock returns and profitability (Hendricks, Singhal and Stratman, 2007), customer acquisition, maintenance, retention and loyalty (Becker, Greve and Albers, 2009), new product and service development (Karakostas, Kardaras and Papathanassiou, 2005) or improved decision-making capabilities (Bendoly, Rosenzweig and Stratman, 2009). It seems that technology adoption by the sales force is sometimes lagging and that unintended negative consequences - such as unfavorable job attitudes and staff turnover (Jones, et al., 2005) - sometimes arise. Even when CRM systems improve overall organisational performance, CRM system usage shows diminishing returns after an initial period of improved sales performance (Ahearne, Srinivasan and Weinstein, 2004). However, although CRM applications do not always fully meet expectations, CRM implementation does create value for certain firms and industries. CRM systems do provide benefits such as better access to information (Erffmeyer and Johnson, 2001; Pan and

Lee, 2003), improved sales force efficiency and customer relations (Reinartz, Krafft and Hoyer, 2004; Eid, 2007; Richard, Thirkell and Huff, 2007; Moutot and Bascoul, 2008), increased sales performance (Engle and Barnes, 2000; Ahearne and Schillewaert, 2001; Avlonitis and Panagopoulos, 2005; Ahearne, Hughes and Schillewaert, 2007; Sundaram, et al., 2007; Rapp, Agnihotri and Forbes, 2008) and profitability (Ang and Buttle, 2006), improved customer knowledge and customer satisfaction (Mithas, Krishnan and Fornell, 2005), and increased process efficiency (Dong and Zhu, 2008).

Zablah, Bellenger and Johnston (2004), and Boulding, et al. (2005) summarize previous research on the pitfalls and critical success factors of CRM technological initiatives, and propose some corrective actions. Experts generally agree that customer-centric strategies (Rigby, Reichheld and Scheffer, 2002; Rigby and Ledingham, 2004; Peelen, et al., 2009), top management support (Croteau and Li, 2003; Liang, et al., 2007), organisational readiness to execute the CRM strategy (Rigby, Reichheld and Scheffer, 2002; Agarwal, Harding and Schumacher, 2004; Roberts, Liu and Hazard, 2005; Raman, Wittmann and Rauseo, 2006), knowledge management capabilities (Croteau and Li, 2003), cross-functional collaboration (Ryals and Knox, 2001; Nelson and Kirkby, 2001), project management best practices (Wilson, Daniel and McDonald, 2002; Alt and Puschmann, 2004; Rahimi and Berman, 2009), data quality (Nelson and Kirkby, 2001) and perceived usefulness and benefits by users and their managers (Bush, Moore and Rocco, 2005; Boujema, Johnston and Merunka, 2009; Lee, Kim and Hackney, 2011) are key factors that contribute to CRM project success. Unfortunately, despite this abundant and consistent literature, CRM project failure rates remain high.

CRM tools represent an interesting case in terms of adoption and usage, mainly due to user population characteristics. The sales force and, to a lesser extent, marketing departments are often considered to be a fairly independent and autonomous workforce (Morgan and Inks, 2001; Jones, Sundaram and Chin, 2002). They are viewed as entrepreneurs, and often “conduct business with limited supervision, deciding on ways to grow sales volume in their respective territories” (Jones, Roberts and Chonko, 2000, p.37). Therefore, managing change within this sales population in the context of a CRM system introduction is a critical issue to avoid strong resistance due to a fear of management

interference and loss of power, and ensure system acceptance. CRM project managers need to be aware that being on time, on budget and within the agreed-upon business and technical scope does not automatically mean that the system will be used to achieve the business results projected by stakeholders (Markus, et al., 2000; Mabert, Soni and Venkataramanan, 2003; Marchand, 2005; Peppard, Ward and Daniel, 2006). If users are reluctant to use the system because of a bad design (Markus and Keil, 1994), poor quality information (Marchand, Kettinger and Rollins, 2000) or fear of power loss (Morgan and Inks, 2001), the time, effort and cost spent in project development and implementation will be forfeited. Consequently, project stakeholders must focus on the effectiveness of their CRM system at each stage, from its inception to its deployment and use. In their longitudinal analysis of eight hospitals, Devaraj and Kohli (2003) find that the actual usage of technology is associated with better hospital financial and quality performance. The authors highlight two important points. Firstly, actual usage is a variable to consider when assessing the impact of information technology (IT) investment on performance; in fact, experts sometimes refer to usage as “the missing link.” Secondly, because of the lagged effect of IT investment (Banker, Chang and Kao, 2001), a longitudinal study will provide better insight into the value of IT. Their proposal is corroborated by Markus, et al. (2000) who show that success at one point in time may only be loosely related to success at another point in time. Relatively few studies have looked at how people actually use CRM systems and how their usage behaviour evolves over time during the post-adoption usage phases. A better understanding of CRM system use should help practitioners and academics explain why so many CRM projects fail to meet stakeholders’ objectives, and take corrective measures. This is an important and topical subject at a time when CRM has edged past ERP as the top application software investment priority and is expected to drive ES spending in 2013 and 2014 (Swinehart, Wuster and Correia, 2013).

### **1.1. Expected Contribution of This Thesis**

The goal of this study is to better understand CRM post-adoption usage phases and the evolution of factors influencing CRM system use along these phases. CRM software packages, like most enterprise systems, are usually designed to fit generic rather than company-specific needs (Lucas et al., 1998; Seddon et

al., 2003; Strong and Volkoff, 2010). Based on this finding, the following research will focus on organisation-enterprise system (mis)fit to explain for CRM system usage and user evolution. Since the seminal work by Soh et al. (2000, 2003), numerous studies have improved our understanding of organisation-enterprise system (mis)fits. The researcher conducted three longitudinal case studies using grounded theory procedures in order to develop a deeper understanding of misfits in the specific context of CRM implementations. In other words, the researcher looked at where, when and why misfits arose, classified misfit types and examined how they were tackled and eventually solved. He also examined the relationship between (mis)fit and usage behaviour and evolution.

Grounded theory is adopted in this research for the following reasons. Firstly, the analysis of the evolution of factors influencing IS usage and enabling users to transition from one post-adoption phase to another is fairly under-researched and, therefore, a theory-generating approach seems appropriate when no current theory has been established to date or when the topic has received only superficial attention (Goulding, 2002). Secondly, one of the main research questions of this thesis deals with the impact of the firm's context on IS usage. Because of the complexities and interrelationships of the firm's internal and external context, it is important to root the contextual findings in empirical data obtained from specific implementations. Furthermore, GT allows for a wide range of data sources (e.g. interviews, surveys, observational data, experiments, case studies, or secondary sources) as long as they fit the research objective (Glaser, 1978). The GT techniques of constant comparative analysis, theoretically sampling, and continuous interplay between data collection, analysis and theory development should be helpful throughout this inductive, contextual, process-based research (Charmaz, 2006; Suddaby, 2006). Thirdly, GT is well suited for developing theories of organisational change (Glaser and Strauss, 1967), and therefore seems to meet the researcher's objective to track organisational changes and CRM system usage evolution. Fourthly, GT provides a set of established guidelines for conducting research and interpreting the data, a fairly useful construct for a novice researcher. Finally, this methodology, now used in many business and management studies, has proved useful in numerous IS research studies by



bringing to light the human and organisational factors of IS development and usage (Orlikowski, 1993; Hughes and Jones, 2004; Strong and Volkoff, 2010). For those reasons, over the past decade, there has been increasing interest in the use of GT in information system research in developing context-based, process-oriented descriptions and explanations of IS phenomena (Urquhart, Lehman and Myers, 2010).

This longitudinal analysis of three CRM initiatives aims to help project stakeholders understand why individual users are engaged at different post-adoption usage phases and, therefore, take appropriate action at each phase to ensure a more efficient CRM system usage (Bendoly, Rosenzweig and Stratman, 2009). A better understanding of CRM system use should consequently contribute to an increase in CRM system value and, thus, the realization of the stakeholders' initial objectives.

This study builds upon the work done by Saeed and Abdinnour (2013) and Jasperson, Carter and Zmud (2005) on post-adoption IS usage phases and individual user behaviours. It also aims at finding organisation-CRM system (mis)fits to explain for usage variation and evolution (Strong and Volkoff, 2010). More specifically, this study addresses the following questions:

- What are the typical CRM post-adoption usage phases?
- Why are individual CRM users engaged at different post-adoption usage phases?
- Within each phase, how are users affected by organisational interventions?

Understanding why and how IS users evolve along post-adoption phases is a critical issue in ensuring the effective utilization of information systems (Jasperson, Carter and Zmud, 2005; Saeed and Abdinnour, 2013). This study addresses this issue in the context of CRM systems, for which few longitudinal, individual user-based studies exist. Similarly, very few studies have looked at organisation-enterprise system misfits in the context of CRM implementations.

## **1.2. Organisation of This Thesis**

Chapter two introduces the definitions of CRM and CRM systems, presents the findings of a literature review, and identifies the gaps found in the research.

Chapter three presents this study's research methodology (multiple case study design) and method (grounded theory), highlights the key authors, and introduces the data collection and coding processes. Chapter four describes the data analysis process and presents the open and axial coding results. Chapter five summarizes the within-case analysis and presents the findings of each case study. Chapter six presents the cross-case analysis and highlights key conclusions. Chapter seven recapitulates the main conclusions of this research, highlights several implications for theory and practice, discusses research limitations, and proposes recommendations for further work. Finally, a list of references is presented at the end of the document.

## **Chapter 2. Literature Review**

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### **2.1. Structure of the Literature Review**

This thesis intends to achieve four main objectives. Firstly, it aims to identify post-adoption CRM system usage phases based on three in-depth and longitudinal case studies. The intent is to focus specifically on system usage and therefore provide a great level of detail on the characteristics and boundaries of usage phases. Secondly, it intends to situate individual CRM system users along those phases, and understand their usage behaviours. Thirdly, it strives to identify the factors influencing usage at each phase of the post-adoption process, and examine how those factors evolve over time and contribute to the transition of users between phases. Finally, it aims to identify a root cause that could explain individual CRM system usage behaviour. The analysis of usage behaviour and evolution is based on the principle of organisation-enterprise system (mis)fit as recently shown by Strong and Volkoff (2010).

Based on the above objectives, the following five categories of IS literature have been identified. To begin the researcher clarifies the scope of his research by defining what CRM is, and by describing the various CRM software applications. He then reviews the organisation-enterprise system fit literature. He later reviews the various conceptualizations of IS usage phases, critiques

the measurement approaches used for the IS usage construct, and determines whether CRM systems have received sufficient attention. Following that he examines factors influencing IS usage, in particular, he reviews studies based on the diffusion of innovation (DOI) theory by Rogers (2003) and on the technology-organisation-environment (TOE) framework by Tornatzki and Fleischer (1990). Finally, he reviews studies investigating the evolution of IS users along the post-adoption usage process. The researcher also identifies the gaps found in those five streams of research in order to justify his research. Those gaps relate to the scarcity of longitudinal CRM studies, the lack of CRM system usage research at the level of individual users, the lack of CRM research at system feature level and the need for studies addressing the evolution and interrelationships of factors influencing usage.

## **2.2. CRM Definitions**

Below is a definition of the CRM functional area and its related information systems.

### **Customer Relationship Management (CRM)**

There is a plethora of definitions for CRM, a term coined in the mid-1990s. Payne and Frow (2005) summarize definitions and descriptions of CRM from a wide range of sources. More importantly, the authors map them against what they call “the CRM continuum”, and classify CRM definitions from the implementation of a specific technology project (IT perspective) to a holistic approach to managing customer relationships in order to create shareholder value (strategy perspective). Most definitions quoted by Payne and Frow tend to lean towards the strategy perspective, although no clear consensus is reached. This strategy perspective also prevails in the definition provided by Boulding, et al. (2005), and King and Burgess (2008). Not surprisingly, after years of initial confusion, the field of CRM has begun to converge on a common definition. When referring to CRM initiatives, this study refers to the following definition provided by Payne and Frow (2005, p.168): “CRM is a strategic approach that is concerned with creating improved shareholder value through the development of appropriate relationships with key customers and customers segments. CRM unites the potential of relationship marketing strategies and information technology (IT). This requires a cross-functional integration of processes,

people, operations and marketing capabilities.” It is important to note that the authors stress the fact that IT, although an important component, is merely an enabler of this marketing strategy. Jayachandran, et al. (2005), Roberts, Liu and Hazard (2005), Richard, Thirkell and Huff (2007), and Becker, Greve and Albers (2009) study the role of technology within CRM initiatives: promoting the initiation, maintenance and retention of customer relationships, automating internal sales and marketing processes, and facilitating customer data gathering and analysis are some of the key roles of CRM technology. However, most studies see CRM technology just as an enabler to support a business-led, strategic CRM initiative.

### **CRM Systems**

This research addresses CRM system usage within the scope of a strategic, business-led CRM initiative, and focuses more specifically on the usage of the IS component. Ling and Yen (2001) categorize the technologies used to support a CRM initiative as follows. Firstly, they list tools used to capture information across touch points such as sales force automation (SFA) tools, call center applications, web forms, email, online communities, phone, fax, etc. Engelstätter and Sarbu (2011) recently added social media to this initial list. Secondly, the authors include workflow engines deployed to automate business processes and interactions with customers (Coltman, 2006). Thirdly, they include business intelligence tools as part of this portfolio of technologies, in particular data warehouses built to store customer and transactional data, and analysis/reporting tools such as online analytical processing (OLAP) and data mining. The fourth set of technologies listed by Ling and Yen (2001) aim to improve the management of marketing campaigns during the segmentation, planning, execution, response tracking and follow-up phases. Finally, as organisations rely on a multitude of information systems, interfaces between CRM systems and other operational and communication systems (e.g. ERP, web site) constitute the last piece of this diverse set of technologies. Goodhue, Wixom and Watson (2002) classify the technologies listed by Ling and Yen (2001) into two groups: analytical CRM (business intelligence [BI] and campaign management tools) and operational CRM (SFA, call center and emailing tools,

workflows and interfaces). Their classification is now well-accepted in the academic, practitioner and solution provider communities (Tanner, et al., 2005; Torggler, 2008). Recently, the introduction of collaborative CRM functionalities (web 2.0) and new communication channels has added another perspective to the definition of CRM: multichannel CRM (Nguyen, Sherif and Newby, 2007; Awasthi and Sangle, 2012). Gartner's magic quadrant (Desisto, 2010) provides an overview of the key CRM system providers.

CRM systems support and automate several organisational business processes. According to Morgan and Inks (2001, p.463), CRM refers to "the use of computer hardware, software, and telecommunications devices by salespeople in their selling and/or administrative activities." CRM tools support the sales process by improving the speed and quality of information flow between the salesperson, his customers and his organisation (Speier and Venkatesh, 2002). Collected information might include customer sales transactions, customer profiles, competitors' information, product related information and prices. However, sales are only one of the four departments where CRM systems may be installed: call centers, field service and marketing departments can also be equipped with CRM systems (Xu, et al., 2002). CRM functionalities are diverse and comprise contact and activity management, order management, proposal generation and quotation management, sales forecasting (for sales departments), direct mail and customer segmentation (for marketing departments), call handling and case resolution (for call center and field service operations), and event management (Tanner, et al., 2005; Buttle, Ang and Iriana, 2006).

### **2.3. Organisation-Enterprise System Fit**

Task-technology fit (TTF) and software package-organisation fit have long been recognized as major issues in the implementation of package software. TTF theory holds that IT is more likely to have a positive impact on individual performance and be used if the IT capabilities match the tasks the user must perform (Goodhue, 1995; Goodhue and Thompson, 1995). Goodhue and Thompson (1995) developed a measure of TTF that consists of eight factors: quality, locatability, authorization, compatibility, ease of use and training, production timeliness, system reliability and relationship with users. They found

that the TTF measure, in conjunction with utilization, was a significant predictor of user improved job performance and effectiveness attributable to their use of the system. As in this thesis, TTF focuses on the individual user, examines specific tasks performed by users, and tries to predict their utilization and the contribution of utilization to performance. TTF factors are somehow similar to the gaps identified in this study, such as: ease of use/training (misfit type: user support and skill sets), quality, locatability, authorization and compatibility (misfit type: data) and production timeliness and systems reliability (misfit type: functionality). However, the role of management (top management and direct supervisors) in communicating system objectives and results and supervising staff, and user commitment and motivation to reach job objectives are not really dealt with in the TTF model, which only concentrates on users and their system tasks.

The organisation-enterprise system (ES) fit literature is concerned with the fit between the enterprise system and the different elements of an organisation's operations, not only the individual user's tasks. In the early 1980s, Markus and Robey (1983) emphasized that organisational validity (or fit) and technical validity were essential for the success of a technical innovation. In a review of the IS contingency research, Weill and Olson (1987) found that the fit among the contingency variables (strategy, structure, size environment, technology, task and individual characteristics) did have an impact on firm's performance. Lucas, Walton and Ginzberg (1988) found that discrepancies between the features of a package and the organisational characteristics and needs influenced the package implementation process. Similarly, Janson and Subramanian (1996) highlighted that the degree of fit between software and organisation and between vendor and organisation is positively associated with software implementation success. On a more strategic level, Henderson and Venkatraman (1996) developed their 'strategic alignment model,' which aimed at better understanding the potential of IT for organisations and emphasized the multivariate fit among business strategy, IT strategy, organisational infrastructure and processes, and IT infrastructure and processes. The concept of IS fit has been researched for more than 30 years in an attempt to identify the causes of IS failure (Kanellis, Lycett and Paul, 1999). A number of studies have recently focused on major enterprise systems such as material requirements

planning (MRP) and enterprise resource planning (ERP) systems. Many authors have explored the impact of MRPs and ERPs on firm performance and sustainable competitive advantage, and the fit between those packages/vendors that are supposed to provide 'best practices' and organisational processes and culture has been a well-covered area of research (Pereira, 1999; Swan, Newell and Robertson, 1999; Gattiker and Goodhue, 2000; Davison, 2002; Hong and Kim, 2002; Martinsons, 2004). Davison (2002) and Martinsons (2004) particularly insist on the misfit between ERP practices coming from western countries and cultural preferences and practices of Asian societies (Hong-Kong and China). More formally, Soh, Sia and Tay-Yap (2000) classified misfits as data (format and relationship), functional (access, control and operational) and output (report format and content). Those misfits were found in this thesis study and identified in the data and functionality gaps. Soh, Sia and Tay-Yap (2000) also stated that "misfits arose either from company-specific, public-sector-specific (they studied public hospitals) or country-specific (Singapore) requirements that did not match the capabilities of the ERP package," This thesis was not impacted by sector-specific and country-specific requirements. However, company-specific requirements (e.g. management styles, organisational structure and procedures) alluded in some way to some of the gaps presented in this thesis, such as communication and supervision - which are highly dependent on the company's management style, organisational structure and procedures. Soh, et al. (2003) extended their list to include the following misalignments: data ownership, workflow changes, job scope, data entry, reports and revenue processing. Sia and Soh (2002; 2007) later provided a framework to assess the severity of the ERP-organisation misalignment based on institutional theory and systems ontology. They found that those misfits arose from deep or surface structures in the ES and from voluntarily-assumed or externally-imposed organisational structures. They identified four types of misalignments with varying degrees of severity -- imposed-deep, imposed-surface, voluntary-deep and voluntary-surface -- and proposed potential resolutions.

Strong and Volkoff (2010) studied misfits that arose from an ES implementation. They found six categories of misfit: data, functionality, usability, role, control, and organisational culture. Those misfits were either due to system deficiencies

(missing but needed IS features) or system impositions (inherent characteristics of the ES). This is certainly the research that is most similar to this thesis in terms of method (case study, GT) and findings. In both research efforts, the functionality and data misfits and the definitions of the misfits closely match. Strong and Volkoff's usability misfit did not appear in this current thesis. TMS users showed some initial signs of usability misfit during the first weeks of use but not in a way to impact usage. All usability issues were solved by the first round of interviews, a month after TMS launch. This difference can be explained by the complexity of the ERP studied by Strong and Volkoff's (2010). ERPs are usually a more complex piece of software than CRM systems. CRM systems are often more user friendly and intuitive and the processes they support are less complex than back-office activities, at least in this TMS case. Moreover, the initial complexity of Siebel was rapidly overcome by a good initial training session followed by competent and reactive support. Although the researcher did not discover any "technical" usability issues as in Strong and Volkoff (2010), he added a skill set misfit that highlighted the lack of "business" skills required to fully exploit the enormous amount of data now stored in the TMS. Strong and Volkoff's remaining three misfit types (role, control, and organisational culture) are tightly linked to the misfit between the processes embedded within the ERP and the ones currently applicable within the organisation. This thesis did not find such a misfit between the TMS and the company's processes but found that organisation-related issues (management and user attitude) were more important than product-related issues in explaining TMS use.

The notion of misalignment is closely related to that of misfit. Soh, Sia and Tay-Yap (2000) identified misalignments as the incompatibilities between organisational requirements and ERP software in terms of data, process and output. Soh, et al. (2003) added the incompatibility between an ERP system and the implementing organisation. Both studies show that misalignment definition and types are similar to the misfit definition and types found in the literature and in this research.

The study by Zablah, Bellenger and Johnston (2004) is not based on the above streams of research but nevertheless looks at this notion of gap to better understand the high failure rates of CRM implementations. They present a conceptual model that depicts how the extent of alignment between employees,



processes and technology influences end user acceptance of CRM technology. They base their work on the cognitive dissonance theory (Festinger, 1962). As in this thesis, they try to identify gaps (or misfits) between those three components of a CRM program in order to explain adoption. Control mechanisms (supervision), internal support and commitment, user involvement, communication and change management, voluntariness of use, training, educational level (skills), and organisational culture (learning organisation) are factors the authors propose to operationalize their model and that the researcher also highlights in this thesis.

## **2.4. Post-Adoption IS Usage Phases**

### ***2.4.1. Enterprise System Usage Phases***

IS post-adoption usage phases have been a widely covered subject in the innovation diffusion research. Cooper and Zmud (1990) propose a six-phase view of the IT implementation process based on the initial work by Kwon and Zmud (1987): initiation, adoption, adaptation, acceptance, routinization, and infusion. Together, those six phases present a coherent view of the IT implementation process, but do not provide much detail about the post-adoption usage phases (adaptation, acceptance, routinization and infusion). The need for additional insight into the post-adoption phases was later fulfilled by numerous in-depth case studies. Since Kwon and Zmud's initial work (1987), extensive research has been done on the post-adoption phases of specific technologies: ERP (Markus and Tanis, 2000), Decision Support Systems (DSS) (Devaraj and Kohli, 2003), SFA (Buehrer, Senecal and Bolman Pullins, 2005), communications and collaborative systems (Zhu and Kraemer, 2005), and the World Wide Web (Lederer, et al., 1998), just to name a few. Case study-based research has provided a wealth of detailed information on IS post-adoption phases and activities. A brief review of this research is presented below.

Markus and Tanis (2000) propose four phases of ES implementation; the last two (shakedown and onward & upward) are related to post-adoption usage phases. The initial chartering phase comprises business case development, software package selection, project manager identification, and finally budget

approval. Next, the project phase includes all activities related to system deployment. The third phase (“shakedown phase”) involves the initial operations, including bug fixing, system performance tuning, and retraining. The fourth phase (“onward & upward”) reflects normal operations and ends when the system is upgraded or replaced. Based on ERP implementations, Peslak, Subramanian and Clayton (2007) identify four distinct phases of implementation: preparation and training (1), transition (2), performance and usefulness (3), and maintenance (4). Interestingly, they find that two phases directly influence ERP use, namely the preparation and training phase and the performance and usefulness phase. Peslak, Subramanian and Clayton’s preparation and training phase is similar to the initiation, adoption and adaptation phases of Cooper and Zmud (1990). Their performance and usefulness phase deals with response times and access to accurate information (performance) and productivity, job effectiveness and ease of doing the job (usefulness). Their study is limited by its small sample size: only 53 valid questionnaire responses from two real-world implementations of SAP software systems were obtained. Another model of enterprise system implementation is provided by Peppard and Ward (2005) who divide the post-adoption phase into “shakedown” and “onwards & upwards” phases, a model similar to the one developed by Markus and Tanis (2000).

Jasperson, Carter and Zmud (2005) show that the functional potential of IT applications is often underutilized. They introduce a new extension phase where users extend the initial range of IT application functionalities into new and innovative uses (e.g. through adjustment of software features or organisational processes). Their work builds upon similar findings by Johnson and Rice (1987) on word processing systems and Wright and Donaldson (2002) on sales information systems, and is corroborated by Jones, Zmud and Clark (2008) and Datta and Wand (2009). Lassila and Brancheau (1999), Min and Fei (2008), and Hsieh, Ray and Xu (2011) show that extended uses of IT applications may provide greater benefits to organisations than standard adoption and low-integration utilization, whereas Nambisan, Agarwal and Tanniru (1999), and Hsieh, Ray and Xu (2011) look at antecedents of user propensity to innovate with IT applications. Based on this additional extension phase, Saeed and Abdinnour (2013) propose and successfully test three post-adoption usage

stages: routinization (use of the standard features of the IS), infusion (integration of the IS in users' work) and extension (exploration of the potential of the IS in novel contexts).

#### ***2.4.2. Post-Adoption CRM System Usage Phases***

Researchers have proposed a number of CRM strategic frameworks (Sue and Morin, 2001; Winer, 2001; Chan, 2005; Payne and Frow, 2005), and CRM implementation models (Ling and Yen, 2001; Henneberg, 2005; Payne and Frow, 2006). However, these frameworks and models rarely incorporate a detailed post-adoption process, and mostly concentrate on strategy and project implementation issues. For example, none of them address CRM system usage processes and their determinants. CRM as a concept is a well-researched area of marketing theory, but CRM system usage still seems to be an under-researched area (Henneberg, 2005), with the exception of the work done by Cronin and Davenport (1990), Jones, Sundaram and Chin (2002), and Jelinek, et al. (2006). In addition, most of the previous work on CRM system usage has been performed at the level of a company or a department and the conclusions did not take into account potential differences among individual users within the same company or business unit. Investigating IS usage at the level of individual users and following their usage behaviours over an extended time period (12-24 months) should shed new light in this area. It would most likely reveal some significant differences in individual trajectories, eventually leading to more precise identification of post-adoption phases and sub-phases. Post-adoption IS phases are known, but more details would be revealed through individual stories.

**Gap 1: Extensive literature on post-adoption IS usage exists, but research has been rarely conducted at the level of individual users over a long period of time, particularly in the CRM field.**

Jasperson, Carter and Zmud (2005) highlight through an extensive literature review that only a few studies “have empirically examined IT use at a feature level of analysis” (Hiltz and Turoff, 1981; Kay and Thomas, 1995; Straub, Limayem and Karahanna-Evaristo, 1995). We can add three recent studies to their list: Jones, Zmud and Clark (2008), Chang, Lie and Fan (2010), and Chen,

et al. (2012), the latter in the context of a SFA tool. Through in-depth case studies, this research will evaluate CRM system usage at the feature level. This approach should provide more detailed insight into the evolution of individual CRM system usage and potentially reveal diverging usage behaviour within the user population. Jasperson, Carter and Zmud (2005, p.531) corroborate this approach by defining post-adoptive behaviour as “myriad of feature adoption decisions, feature use behaviours and feature extension behaviours made by an individual user after an information technology application has been installed, made accessible to the user and applied by the user in accomplishing his/her work activities.” Features in use seem to be an appropriate level of analysis when studying post-adoption system use (Sun, 2012).

**Gap 2: Research on post-adoption CRM system usage at the feature level is limited.**

#### ***2.4.3. Usage Measurement***

A review of prior research on IS usage constructs shows a predominant focus on frequency and duration, breadth of IS features, and appropriateness of IS usage (Saeed and Abdinnour, 2013). Frequency and duration of IS usage are generally gathered either through questionnaires and interviews (Davis, Bagozzi and Warshaw, 1989; Leidner and Elam, 1993; Venkatesh and Davis, 2000; Wright and Donaldson, 2002; Venkatesh, et al., 2008) or directly through computer logs (Ahearne, Srinivasan and Weinstein, 2004; Ko and Dennis, 2004). Typical measures include the frequency of connection, time spent using the IS, the number of reports run, or application features and records accessed. Venkatesh and Davis (2000) note that there is still a debate regarding whether self-reported data correlate well with actual usage statistics, or whether observational studies and experiments provide better insights on IT use than self-report techniques (Ortiz de Guinea and Markus, 2009). Some authors find a satisfactory correlation (Taylor and Todd, 1995) while others emphasize the potential biases of the self-reported method but still acknowledge the controversy between those two data collection methods (Straub, Limayem and Karahanna-Evaristo, 1995).

However, usage level by itself cannot guarantee or measure the quality and usefulness of usage (Venkatesh, et al., 2003). As far as the definition of the

usage construct is concerned, this thesis follows and incorporates in its definition the recommendations of Boffo and Barki (2003) and Burton-Jones and Straub (2006) who highlight the weaknesses of the current operationalization of the system usage construct (i.e. frequency of use, duration of use, variety of functionalities used, use or non-use, light or heavy use), and propose two other dimensions measuring the business value of usage.

The first dimension looks at IS usage as a task accomplishment (i.e. the extent to which the user employs the system to carry out a task). It tackles the question of how tool functionalities as well as its data and reports help users and their organisation improve performance (i.e. increased productivity in administrative tasks, enhanced customer relationships).

The second dimension views IS usage as a goal achievement in order to measure the business value generated, by answering the following question: "How does the information system enable me and my organisation to better reach our business objectives (i.e. increased sales and market share)?"

As DeLone and McLean (2003, p.16) state: "Researchers must also consider the nature, extent, quality, and appropriateness of the system use. Simply measuring the amount of time a system is used does not properly capture the relationship between usage and the realization of expected benefits." In the same vein, Venkatesh, et al. (2003) argue that system usage by itself is not sufficient, and must be accompanied by a notion of quality and usefulness. More specifically, these authors attempt to assess how the user leverages IS functions in order to better carry out his/her tasks. Burton-Jones and Straub (2006) assert that the richness of the conceptualization and measurement of IS usage depends on the extent to which measures capture more elements linked to the usage phenomena along three dimensions: user, task and system. They propose a two-stage process of selecting the appropriate measures based on the context, research questions and methodology as well as the level of analysis used (individual, group, organisation). Burton-Jones and Gallivan (2007) also provide a set of guidelines for conducting a multilevel perspective on system usage based on the function, structure and context of usage. The idea of incorporating task accomplishment into the usage construct is also advocated by Boffi and Barki (2003) and Ahearne, Hughes and Schillewaert (2007). Massetti and Zmud (1996), in their study of electronic data interchange

(EDI) systems, combine measures that address the frequency, the breadth and the depth of IS use in their IS usage behaviour studies.

In the CRM field, a number of studies follow the Burton-Jones and Straub's usage measurement approach by first categorizing key sales and marketing activities and then reviewing how the CRM system's functionalities help improve those activities. For example, Engle and Barnes (2000) define five main functionalities of a CRM tool (planning and territory management, administration and external information exchange; within company communication, active sales tool, and passive sales tool) and find that the usage of those functionalities explains part of the increase in sales performance. Conversely, Rivers and Dart (1999) review five areas of CRM application (client presentation, order entry, time management, customer queries, and sales office communication), but cannot track any benefits generated by the acquisition and the use of those functionalities.

This CRM study will follow Burton-Jones and Straub's recommendations. Additionally, it will pay particular attention to the data that is collected, organised, processed, maintained and used within those information systems. Customer data is the lifeblood of CRM (Radcliffe, Collins and Kirkby, 2001). The effective use of data and the automation of CRM processes in people's daily activities create business value, not the number of times users access the information system (Xu and Walton, 2005; Stein and Smith, 2009). Customer data quality and the efficient use of those data are key success factors in CRM initiatives (Jayachandran, et al., 2005; Missi, Alshawi and Fitzgerald, 2005). One of the few studies that detail this aspect of effective data management, and that proposes a framework called "Information Orientation" to assess its effectiveness, is presented by Marchand, Kettinger and Rollins (2000; 2001). They assert that information technology and information management fields have focused on the creation of information systems and the development of processes to store information, rather than on the use of information to create business value. The authors demonstrate that IT improves business performance only if combined with what the authors call "Information Orientation," the "appropriate" management and use of information within the organisation. In the same vein, Peppard, Lambert and Edwards (2000) argue that the effective deployment and exploitation of information should be viewed as a 'strategic asset' to leverage value from IS.

The research cited above has been beneficial in helping academics and practitioners learn how to get users to accept and use IS, but IS use alone is not sufficient to obtain benefits (Seddon, 1997). The use must be “effective” in order to “increase achievement of the goals for using the system” (Burton-Jones and Grange, 2012). Jain and Kanungo (2005), Boudreau and Seligman (2005), LeRouge, Hevner and Collins (2007), Pavlou, Dimoka and Housel (2008), and Bendoly, Rosenzweig and Stratman (2009) examine the effective use of IT and highlight its drivers (e.g. perceived usefulness, ease of use, customization, information quality, and service quality) and consequences for business performance. This notion of effective use is somehow similar to what Lucas (1993) and Soh and Markus (1995) call “appropriate” use, that is to say, an IT use that contributes to generating business value. In this vein, Devaraj and Kohli (2003) look at the effect of usage on organisational performance, and find that actual usage is positively and significantly associated with revenue and quality measures, although those positive effects occur after a lag time. They conclude that actual usage might be the missing variable explaining the mixed results of the IT payoff literature, known as the “IT productivity paradox” (Brynjolfsson, 1993; Brynjolfsson and Hitt, 1996; Devaraj and Kohli, 2003). According to Burton-Jones and Grange (2012), research that explicitly studies effective use is still scarce. This is definitively a gap that this research has identified and tries to address by looking over a long period not only at CRM functionalities used, but also at the benefits generated for the users and their teams.

## **2.5. Factors Influencing Post-Adoption IS Usage**

Abundant literature exists on the factors influencing adoption and post-adoption IS usage behaviours. Two theoretical perspectives have been extensively used to explain technological innovation adoption, diffusion, implementation, usage, and performance impact within organisations: the technology-organisation-environment framework (Tornatzki and Fleischer, 1990) and the diffusion of innovation (Rogers, 2003). Although this study focuses on post-adoption IS usage phases, the literature covering adoption phases often reveals factors that are similar in both adoption and post-adoption studies (Jasperson, Carter and Zmud, 2005).

### ***2.5.1. The Technology-Organisation-Environment (TOE) Framework***

The TOE framework defines a “context for change” consisting of three elements that influence the implementation, adoption and usage of technological innovations: the organisational context, the technological context and the environmental context. The organisational context refers to descriptive measures about the firm’s organisation: firm size, managerial structure (complexity, formalization, and centralization), quality of human resources, availability of slack human and financial resources, and decision-making and internal communication processes (e.g. importance of a product champion and top management leadership behaviours). The technological context describes both the internal and external technologies relevant to the firm; it includes current practices and equipment internal to the firm as well as all available technologies external to the firm. The external environmental context is the arena in which the firm conducts its business: industry characteristics and market structure (e.g. intensity of competition, degree of market uncertainty, customers and suppliers relationships), access to resources (availability, quality and cost) and government regulations. In the environmental context, intensity of competition and pressure from trading partners (suppliers/customers) are two variables often used in research models, and are shown to be positively related to innovation adoption and usage (Iacovou, Benbasat and Dexter, 1995; Thong, 1999; Bradford and Florin, 2003; Zhu, Kraemer and Xu, 2003; Zhu, Kraemer and Dexter, 2004; Zhu and Kraemer, 2005; Zhu, et al., 2006; Hsu, Kraemer and Dunkle, 2006). Government regulation is another variable that frequently comes back when modeling the external environment (Zhu, Kraemer and Dexter, 2004; Hsu, Kraemer and Dunkle, 2006).

The TOE framework has been used in various IS fields. Examples include the determinants of post-adoption enterprise digital transformation (Zhu, et al., 2006), e-business use (Zhu and Kraemer, 2005), e-business value (Zhu, Kraemer and Dexter, 2004), open source platforms adoption (Dedrick and West, 2003), IS adoption in small businesses (Thong, 1999), open systems adoption (Chau and Tam, 1997), and EDI adoption and impact (Iacovou, Benbasat and Dexter, 1995).



### ***2.5.2. The Diffusion of Innovation (DOI) Theory***

Research based on diffusion of innovation (DOI) theory investigates the evaluation, adoption and implementation of innovations. Rogers (1983) proposes five characteristics of an innovation that impact its usage: relative advantage versus competitors, compatibility with existing business processes and systems, complexity of use, observability of the innovation results and trialability of the innovation. In the same vein, Tornatzki and Klein (1982) in their meta-analysis on innovation characteristics and their relationships to innovation adoption and implementation, find that relative advantage, costs and compatibility are significant factors leading to innovation diffusion. This is confirmed by empirical research (Premkumar, Ramamurthy and Sree Nilakanta, 1994). Based on Rogers' work, Moore and Benbasat (1991) propose a 38-item instrument to measure an individual's various perceptions of adopting an IT innovation.

Rogers emphasizes the notion that technologies possess characteristics that have systematic effects on diffusion and assimilation. Moreover, the perception that the organisation (management, implementers, and users) has about those characteristics influences the deployment and usage phases and can therefore complement the TOE framework in order to provide more explanatory power.

Studies evaluating the factors that influence adoption and post-adoption behaviours often combine both DOI and TOE concepts. Iacovou, Benbasat and Dexter (1995), and Hsu, Kraemer and Dunkle (2006) are examples of the combined use of both approaches. Iacovou, Benbasat and Dexter (1995) propose three dimensions: perceived benefits, organisational readiness (financial and IT resources) and external pressure (peer pressure, trading partner pressure). Their model tries to capture the characteristics of inter-organisation systems (e.g. EDI) by including factors such as external pressure. Hsu, Kraemer and Dunkle (2006) combine both models to define four dimensions: perceived benefits, organisational readiness (firm size, technology resources, and globalization level), external pressure (trading partner pressure, government) and environment (regulatory concern, competition intensity). Similarly, Agarwal (2000) groups constructs used to explain organisational IT acceptance into five main categories: beliefs and attitudes (e.g. relative advantage, ease of use, compatibility), individual differences (e.g. gender, age,

experience, personality, motivation), social influences (supervisor behaviour, technology champion), situational influences (e.g. task-technology fit) and managerial intervention (e.g. top management support, appropriate training). At the individual level, Kim and Kankanhalli (2009) find that user resistance can stem from a willingness to remain at a status quo, highlighting that switching costs are an important factor in future IS usage level.

Prescott and Conger (1995), and more recently Fichman (2000) provide a summary of empirical research based on the DOI theory and TOE framework, and highlight the factors affecting the diffusion and assimilation of IT innovations. Two particular remarks can be made on their research.

Firstly, many studies using the DOI theory and the TOE framework to model the firm's context examine the adoption phase. Until very recently, research on post-adoption phases has been lacking. Two recent studies specifically evaluate post-adoption IS usage phases. The first study (Claycomb, Iyer and Germain, 2005) looks at business-to-business (B2B) e-commerce usage and the impact of four variables as usage predictors (innovation characteristics, context, channel factors and organisational structure). The second (Pflughoeft, et al., 2003) includes two sets of independent variables in evaluating web use and benefits for small business: context (market pressure from customers, suppliers and competitors plus scope of operations [i.e. regional, national and international]) and IT infrastructure (IT sophistication and web-related costs). Those studies do not introduce any new variables that were not already incorporated within the DOI and TOE models.

Secondly, some of the factors influencing usage, such as relative advantage (Premkumar, Ramamurthy and Sree Nilakanta, 1994; Zhu, et al., 2006), perceived benefits (Hsu, Kraemer and Dunkle, 2006; Iacovou, Benbasat and Dexter, 1995), perceived complexity (Bradford and Florin, 2003), and compatibility (Cooper and Zmud, 1990) are part of the Technology Acceptance Model and Technology Acceptance Model 2 proposed respectively by Davis (1989) / Davis, Bagozzi and Warshaw (1989) and by Venkatesh and Davis (2000). Those authors state that perceived usefulness and perceived ease of use act as determinants of intention to use and usage behaviour. More generally, the antecedents of IT use are derived from cognitive-based models

such as the technology acceptance model (Davis, 1989; Davis, Bagozzi and Warshaw, 1992), the unified theory of acceptance and use of technology (Venkatesh, et al., 2003), the innovation diffusion theory (Rogers, 1983), the decomposed theory of planned behaviour (Taylor and Todd, 1995) and the social cognitive theory (Compeau, Higgins and Huff, 1999).

In summary, the factors influencing post-adoption IS usage have already been extensively explored in prior research and recent studies merely examine certain factors in greater depth. For example, Jasperson, Carter and Zmud (2005), and Chang, Lie and Fan (2010) evaluate prior use, habit and a feature-centric view of technology. Beaudry and Pinsonneault (2010) study the role of emotions on IT use and Kim and Kankanhalli (2009) focus on user status quo and switching costs. Other recent studies look at how certain factors influence usage under specific conditions, such as voluntary versus mandatory use or sporadic use (Wilson, Mao and Lankton, 2010).

### **2.5.3. TOE, DOI, and CRM Systems**

The previous section highlighted the main factors impacting the adoption and usage of technological innovations. This section will focus on the factors influencing CRM system usage.

When explaining usage or intent to use CRM systems, the usual key determinants listed most frequently in the research include (perceived) usefulness, (perceived) ease of use, top and sales management involvement and support (including incentives to use the system), user participation, involvement and attitude, training, technical support, and individual characteristics such as age - a proxy used to assess reluctance to change – gender, or people innovativeness/attitude towards new technology (Rivers and Dart, 1999; Speier and Venkatesh, 2002; Ndubisi and Jantan, 2003; Ahearne, Jelinek and Rapp, 2005; Buehrer, Senecal and Bolman Pullins, 2005; Bush, Moore and Rocco, 2005; Avlonitis and Panagopoulos, 2005; Schillewaert, et al., 2005; Eid, 2007; Becker, Greve and Albers, 2009; Hung, et al., 2010; Pai and Tu, 2011). Inter-departmental collaboration and IT/business operations organisational alignment are also often found to be key success factors in CRM/marketing and other IT projects (Ruekert and Walker, 1987; Lim and Reid,

1992; Henderson and Venkatraman, 1993; Luftman, Papp and Brier, 1999; Ryals and Knox, 2001; Wehmeyer, 2005; Bohling, et al., 2006; Hart, 2006; Grant, Hackney and Edgar, 2010). More generally, organisational culture – a fairly rich and vast concept comprising symbols, heroes, rituals, values, practices, artifacts and technology – is viewed as having an impact on IS deployment and usage (Robey and Rodriguez-Diaz, 1989). For example, Iivari and Huisman (2007) look at four culture orientations (group, developmental, hierarchical and rational) and their impact on the deployment of systems development methodologies within the IS organisation. Leidner and Kayworth (2006) review the role of culture in IS research, first providing a taxonomy of cultural values and then reviewing and classifying the literature. Mahenthiran, D'Itri and Donn (1999), and Hoffman and Klepper (2000) also address the role of organisational culture on technology implementation and assimilation.

Three CRM research studies (Parthasarathy and Sohi, 1997; Croteau and Li, 2003; Ko, et al., 2008) use the DOI model when evaluating CRM adoption. Notably, Croteau and Li (2003) use and extend the technology adoption framework from Iacovou, Benbasat and Dexter (1995).

Recently, CRM researchers have identified several additional determinants. Jones, Sundaram and Chin (2002) and Karahanna, Agarwal and Angst (2006) add compatibility with the existing system and processes as a factor explaining the intention to use a new system. Ahearne, Jelinek and Rapp (2005) note that barriers to use include the sales force's lack of time to invest in learning the tool and insufficient financial investment by the organisation. Avlonitis and Panagopoulos (2005) find that the sales force will be more likely to accept the tool if management sets accurate expectations regarding system usage. Gefen and Ridings (2002), and Erffmeyer and Johnson (2001) show that users' perception of implementation team responsiveness and a tight collaboration between IT and business operations during the project will increase the favorable assessment and adoption of the new tool. Cho and Chang (2008) examine user resistance in the context of an SFA introduction and find that job satisfaction, job performance, self-efficacy, group-efficacy, innovativeness and peer usage are key factors influencing post-adoption usage. Besides Schillewaert, et al. (2005), very few studies on CRM adoption include customer requirements or competition utilization as key drivers of usage. Markus and Keil

(1994) add another variable – bad business system design –that negatively affects system usage. In particular, they insist that optimization of a sub-process can be accomplished at the expense of the whole process. For example, they show that a product configuration tool project jeopardized the whole sales process. More recently, in a survey of 249 bank account managers, Beaudry and Pinsonneault (2010) revealed the negative (anger and anxiety) and positive (excitement and happiness) relationships between emotions and the use of an account management system. Finally, Shum, Bove and Auh (2008) demonstrate that the lack of a change management program to help users cope with the new processes, technologies and organisation introduced within a CRM initiative jeopardizes the whole implementation.

Not surprisingly, many factors found in CRM system-based studies are part of the DOI and TOE frameworks: application training/technical support, supervisors' support and clear expectations and incentives about usage, availability of slack human and financial resources (organisational context), business system design competencies (technological context), ease of use, attitude towards technology and compatibility with existing processes and systems (innovation characteristics). The CRM literature also reinforces the fact that some tool characteristics, such as ease of use, may have a different impact on adoption and usage depending on adopters' level of expertise or knowledge. Therefore, the innovation characteristics' influence will vary based on the adopters' knowledge and skills, with the same technology leading to different usage level in different contexts.

Contextual factors affecting IS use have been extensively researched and consequently new factors are unlikely to be discovered through this thesis. More relevant for this thesis are the two recent studies which address influential relationships among factors impacting CRM project success (Kim and Pan, 2006) and ERP usage (Clark, Jones and Zmud, 2009). Both studies shed new light on the intricacies and dynamic nature of those influencing factors. For example, Kim and Pan (2006) show how factors of IS implementation (e.g. project champion, user participation, management support, change management, project team skills, requirements management) influence each other and how interactions among them produce results impacting CRM

implementation success. Unfortunately, studies showing the evolution and interrelationships of influencing factors are still rare for ES.

**Gap 3: Abundant literature on factors influencing IS use exist, but few studies address the evolution and interrelationships of those factors along post-adoption usage phases.**

## **2.6. The Evolution of IS Users**

In the context of this research on post-adoption IS usage phases and the factors influencing IS usage, an interesting question is why users of a particular IS are situated at different post-adoption IS usage stages and why and how those individual users transition from one phase to another. Very few studies have examined these issues, as recently acknowledged by Saeed and Abdinnour (2013). Identifying the triggers that enable individual users to move between phases and sub-phases is critical in moving users towards more value-generating phases. Some research has been performed on those triggers (Lassila and Brancheau, 1999; Jasperson, Carter and Zmud, 2005; Sun, 2012), but not for a population of marketing and sales staff using a CRM system.

Longitudinal studies looking specifically at CRM systems usage are lacking. For example, most studies quoted by Zablach, Bellenger and Johnston (2004) are cross-sectional and, although they provide a wealth of insights about the critical success factors of CRM system implementations, the vast majority are focused on deployment or the relatively short period following deployment, therefore missing almost entirely the usage phase of the system (Wilson, Daniel and McDonald, 2002; Foss, Stone and Ekinici, 2008). Longitudinal studies on ERP (Kennerley and Neely, 2001; Muscatello and Parente, 2006), and SFA (Cronin and Davenport, 1990; Jones, Sundaram and Chin, 2002; Jelinek, et al., 2006) system usage do exist, but they do not account for usage variations over time (Markus, et al., 2000). An exception is the work by Speier and Venkatesh (2002), which shows that a sales force's positive perception of an SFA technology just after training was followed by widespread rejection six months after its introduction. In the same vein, the article by Cronin and Davenport

(1990) provides a longer-term vision by classifying short and long-term personal and corporate impacts of CRM implementations.

### **2.6.1. Evolution of Usage Behaviour**

An evolution of usage behaviour and generated benefits within the post-adoption usage phases exist in ERP initiatives, as shown by Markus, et al. (2000) and Hitt, Wu and Zhou (2002). Markus, et al. (2000, p.245) state that "... different measures of success are appropriate at different points in the ERP experience cycle, and the outcome measured at one point in time are only loosely related to outcomes measured later." The authors advocate the use of different success measures along an ERP project's three phases: the project phase, the shakedown phase and the onward and upward phase. Because, for example, success at "go-live" might be followed by failure during the usage phase, it is important to look at the evolution of usage behaviours and their influencing contextual factors in order to deliver the full business value of CRM systems (Soh and Markus, 1995; Marchand, Kettinger and Rollins, 2001). Similarly, Seddon, Calvert and Yang (2010) recently demonstrated that factors impacting ERP benefits vary over time, and highlighted the dynamic nature of post-adoption phases.

Lassila and Brancheau (1999) identify four equilibrium states and their key characteristics in the utilization of commercial software packages; these equilibrium states (low-integration, standard adoption, expanding, and high-integration) occur when there is a mutual adaptation between the software package and the organisational processes. These states are occasionally disturbed by internal and external change triggers (i.e. complexity of the system, inadequate training, employee turnover, low knowledge-technology gap, time and encouragement for experimentation). Here again, the authors prove that utilization follows a discontinuous change pattern. In the same vein, Barki and Hartwick (1994), Kay and Thomas (1995), Hiltz and Turoff (1981), Bhattacharjee and Premkumar (2004), and Tyre and Orlikowski (1994) all highlight changes in IS use over time as well as key drivers for change, either at the system feature level or overall system level.

More specifically, Beaudry and Pinsonneault (2005) identified four adaptation strategies when users were faced with the introduction of a bank account

management system: benefits maximizing, benefits satisfying, disturbance handling and self-preservation. Adaptation strategies are based on the extent to which users feel in control and view the IS as a threat or opportunity. Although the authors do not talk about usage phases, their results clearly show that users move at different paces along the post-adoption phases depending on the chosen strategies. Examining the path that users take along the usage process is also one of the main objectives of this thesis.

Structuration theory is another stream of research that suggests that implementation and use of new technology are not deterministic and that technologies are structured by users in their context of use (DeSanctis and Poole, 1994; Orlikowski, 1992; 2000). According to the structuration theory, the technology adaptation process evolves over time and is constrained by the organisation's existing structures and its associated tasks and technology.

### **2.6.2. Transition Enablers**

When Jasperson, Carter and Zmud (2005) discuss extensions of available software features, they also present tactics to encourage users to expand their system use. In effect, those tactics are enablers that facilitate the transition to this extension phase. The authors mention intervention sources (i.e. users, peers, experts and managers), cognitions (i.e. ease of use, job-fit, performance expectancy, triability, visibility) and individual characteristics (i.e. age, education, gender, work experience, voluntariness of use). Sykes, Venkatesh and Gosain (2009) confirm that peers can be an important source of help in overcoming barriers in the use of complex systems.

Lassila and Brancheau (1999) highlight similar change triggers between each of their four equilibrium states. Recently, Sun (2012) suggests that triggers such as novel situations (e.g. new task, system upgrade), discrepancies (e.g. unexpected failure or outcome), and deliberate initiatives (e.g. new system use due to manager's request) are a significant impetus to cycles of adaptation in IS use. Identifying those enablers/triggers between each post-adoption phase of a CRM system is also one of the main objectives of this thesis.



### **2.6.3. A Need for Longitudinal CRM Studies**

Research findings regarding the evolution of usage behaviour seems to prove the need for a longitudinal study of usage over a relatively long period in order to uncover different usage phases, potentially influenced by changing contextual factors. Is usage a linear process along which IS users progress, or is it a bit messier at the individual user level? Do some users progress more rapidly than others, and if so, why? Do certain users regress and possibly stop using the CRM system after an initial use phase? Only a longitudinal study will be able to answer those kinds of questions.

Longitudinal research on CRM system usage is relatively rare, partly because of the time and cost involved (Lam and Lee, 2006; Bryman and Bell, 2007). In most of the research involving CRM systems, authors base their work on self-completion questionnaires or structured interview research within a cross-sectional design, with data collected at two points in time -- usually just before and three to nine months after CRM system implementation or training. This is the case of Moutot and Bascoul (2008), and Jelinek, et al. (2006) in their studies of the impact of SFA tools on CRM processes and sales performance, respectively. In the same vein, the following authors also rely on this type of longitudinal design: Khalifa and Shen (2009), when explaining the effects of various types of eCRM functions on customer satisfaction in the context of online shopping, Jones, Sundaram and Chin (2002) in their analysis of factors leading to SFA use, Lam and Lee (2006) in their longitudinal study of internet adoption by adults, Speier and Venkatesh (2002) in their SFA adoption study, Saeed, et al. (2010) in the different but related domain of ERPs and Venkatesh and Davis (2000) in their four longitudinal field studies. Although some form of longitudinal design is used in these studies, researchers do not really focus on the dynamic nature of the CRM usage process and usually do not cover the mechanisms and processes through which changes in usage are triggered. Although Orlikowski (1992), Tyre and Hauptman (1992), and Tyre and Orlikowski (1993, 1994) show that technological adaptation happens very shortly after introduction (within the first three months) and that further adaptation is rare unless it is due to some major event (such as new management, product failure, or new technology), other authors such as Bhattacharjee and Premkumar (2004), and Osarenkhoe (2006) show how

users' beliefs and attitudes toward IT usage change over time. Consequently, it is certainly worthwhile to follow and analyze changes in IS usage behaviour over a long period. According to Bhattacharjee and Premkumar (2004) and Osarenkhoe (2006), CRM practitioners should pay attention to the use of their CRM tool throughout the deployed system's whole life cycle, well beyond the initial three months. This longitudinal setting was already used by Osarenkhoe (2006) in his four-year study on the use of a CRM system in a bank.

**Gap 4: There is a lack of longitudinal studies of CRM systems usage, which could unveil the dynamics of individual user progression along post-adoption usage phases.**

## Chapter 3. Research Methodology

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Most authors agree that transparency is essential when presenting the results of qualitative research (Bringer, Johnston and Brackenridge, 2004; 2006). The next chapters thoroughly describe each step of the qualitative framework followed throughout this thesis as well as the use of the software program (QSR NVIVO 8) selected to support the iterative process of data coding and analysis, memo writing and theorizing. Excerpts of some interviewee comments together with their coding and analysis will be presented in order to support the described methodology and justify its conclusions.

### 3.1. The Philosophical Perspective: An Interpretive Research

Before justifying and explaining the qualitative research method used throughout this thesis, it is important to clarify the underlying epistemology which guides this research. Orlikowski and Baroudi (1991) suggest three epistemological categories: positivist, interpretive and critical. The choice of a specific qualitative method (such as the multiple case study method used in this thesis) is independent of the underlying philosophical position adopted. For example, case study research can be positivist (Yin, 2003; Benbasat, Goldstein and Mead, 1987), interpretive (Walsham, 1993) or critical (Hirschheim and Klein, 1994), although the distinction is not always clear (Myers, 1997; Weber, 2004). A brief description of the three epistemological categories follows.

Positivists generally assume that reality is objectively given and can be described by measurable properties that are independent of the observer and his or her instruments (Myers, 1997). Orlikowski and Baroudi (1991) classify a research as positivist if there is some evidence of formal propositions, quantifiable measures of variables, hypothesis testing, and the drawing of inferences about a phenomenon from a sample to a stated population. On the other hand, interpretive researchers assume that access to reality is only through social constructions such as language, consciousness and shared meanings. Interpretative methods of research in IS are “aimed at producing an understanding of the context of the information system, and the process whereby the information system influences and is influenced by the context”

(Walsham, 1993, p.4-5). Studying how the context influences CRM system use is precisely the subject of this thesis. Critical researchers assume that social reality is historically constituted and that it is produced and reproduced by people. They believe that people's ability to change their social and economic circumstances is constrained by diverse forms of social, cultural and political domination. The role of the critical researcher is to bring to light those restrictive and alienating conditions and help people eliminate the causes of alienation and domination (Hirschheim and Klein, 1994).

This multi-case study adopts an interpretive approach. The researcher rejects the possibility of an "objective" and "factual" account of events and situations beyond the human mind, and believes that people in their settings socially construct reality through language, consciousness, shared meanings, documents, tools, and other artifacts (Klein and Myers, 1999). Knowledge of the world is intentionally constituted through people's lived experiences. This is why data collection through field interviews and observations is this thesis' primary source of information, and all major findings are derived from the analysis of those interviews. In no way does this research impose an a-priori understanding on the situation, rather, an "outside researcher" is conducting a study through formal interviews with no direct involvement in action in the field and no significant feedback provided to participants (Walsham, 2006). The researcher's intent is to increase the understanding of a phenomenon (CRM system use) within cultural and contextual situations, where the phenomenon is studied in its natural settings and from the perspective of the interviewed participants. This supports the belief that human interpretations are of central importance to the practice (and use) of IS (Walsham, 1995). Also, this research does not systematically seek generalization from a relatively small sample of case studies to a large population (e.g. to all users of CRM systems), but merely attempts to better understand the phenomenon within specific contexts, therefore contributing new and rich insight to the studied phenomenon.

Based on the underlying epistemology, this thesis follows Klein and Myers' (1999) principles as overall guidelines through this interpretative field research: the Hermeneutic cycle (constant iterations between the whole and its parts for a better understanding of the phenomenon), the principle of contextualization (critical reflection on the social and historical background of each case study),

the role of the researcher (within his interactions with participants), the principle of abstraction and generalization (to go beyond raw data), the sensitivity of the researcher (to highlight possible contradictions and interpretations among the participants), and the principle of suspicion (for possible biases and distortions in the narratives collected from participants). Those principles will be further explored in the discussion of the method (grounded theory) used for data collection, data analysis and theory generation.

### **3.2. A Multiple Case Study Design**

Within the limited timeframe of the Newcastle/Grenoble DBA program, the longitudinal approach adopted for this research prevents the addition of too many cases. Instead, this thesis follows a multiple case study method as advocated by Eisenhardt (1989), and Eisenhardt and Graebner (2007), leading to the inclusion of three cases from June 2008 to May 2013, conducted in three distinct companies and in two different European countries (Romania and Switzerland), but for the same type of IS (CRM systems). This multiple case study design does not mean that the thesis will adopt literal or theoretical replication logic as suggested by Yin (2003), which usually requires a large number of cases. The selection of the three cases and their in-depth analysis and comparison should merely contribute to a better understanding and explanation of the phenomenon under study. Replication is not an objective; rather, the thesis' goal is to provide a detailed understanding of each case and to discover potential cross-case patterns (Andrade, 2009). Because the researcher's objective is to potentially discover cross-case patterns to reinforce within-case findings, the single case approach as advocated by Stake (2006) was initially ruled out.

The case study design seems to be particularly well-suited to this research, which investigates a contemporary phenomenon (IS use) within its real-life context, and where the boundaries between the studied phenomenon and its organisational context are not clearly evident (Darke, Shanks and Broadbent, 1998; Yin, 2003). The case study approach is also useful for answering the "how" and "why" questions raised in this exploratory study (Benbasat, Goldstein and Mead, 1987; Galliers, 1991a, 1991b; Cavaye, 1996; Yin, 2003; Galliers, Markus and Newel, 2007). The three in-depth case studies should help

understand why factors influencing IS usage appear and disappear at certain stages of the usage process and how users transition from one phase to another along the post-adoption CRM usage phases. Similar to Andrade (2009), this thesis adopts an interpretive case study approach, which seems appropriate for “generating a well-founded comprehension of the complex interaction between humans and computers with their social settings” (Myers, 1997; Orlikowski and Baroudi, 1991; Walsham, 1995; Kling, 2007).

Selecting cases is an important aspect of building theory and issuing recommendations from case studies (Eisenhardt, 1989). Cases in this research were definitively chosen for theoretical rather than statistical reasons. Unfortunately, field research is not always straightforward. A short recap on this selection process is necessary in order to illustrate the challenges of this research effort. The researcher’s original objective was to study three different Siebel (Oracle) CRM system implementations within the same international consumer products company in three different countries. This design was meant to facilitate a cross-case analysis by keeping some key parameters - such as the business objectives of the CRM implementation, the environment of the firm (e.g. industry), the deployed tool and its core functionalities, and the user population (sales and marketing staff) - as constant as possible. Despite being limited to one company in one specific industrial sector, this study should have provided deep insights for that particular company. Unfortunately, several months after the end of the initial case study conducted in Romania, the company decided to put all subsequent CRM implementations on hold due to a major reorganisation of its distribution channels. Six months later, the director of the worldwide CRM program announced that no further deployment of the Siebel CRM systems would occur for the next 18 months. In response, the researcher had to find other implementation sites meeting the following criteria. First, the site should roll out similar CRM functionalities (SFA and Marketing Automation) within similar functional departments (sales and marketing). The second criterion for selecting new cases was full access to information and people, a very important factor when performing qualitative and longitudinal analysis. All levels of management at selected sites should be willing to provide full cooperation to the researcher. Stake (2006, p.451) mentions that “there are cases within the case – embedded cases or mini-cases”, and consequently

when the researcher comes across those embedded cases it is crucial that he is granted access to additional information or informants to pursue them. The third criterion was that the selected site should be about to “go live” with the CRM system, as the research study should start right at the beginning of the usage phase. This was certainly the biggest constraint, especially in an unfavorable period (2008-2013) for IS investments. The above three criteria were mandatory but the choice of industry was flexible, as time was running out. Ultimately, the sectors of the three cases turned out to be somewhat heterogeneous: manufacturing industry (consumer products) for the initial case study and service (education and real estate) for the additional two studies. However, the common patterns found across those three different industry sectors definitively reinforced the robustness of the research findings.

### **3.3. Grounded Theory**

Within this multiple case study design, grounded theory (GT) is the method used to gather and analyze individual case study data. Case study design and grounded theory can complement each other and be used in a combined manner by interpretive researchers aiming at building theory (Hughes and Jones, 2003; Andrade, 2009). The GT research methodology (Glaser and Strauss, 1967; Glaser, 1978; 1998; Strauss and Corbin, 1998) was originally developed by sociologists for sociologists, but is now used in multiple fields of research, ranging from nursing, psychology and social work to management and IT/IS. This inductive, qualitative methodology has been already used in areas closely related to those of this thesis: organisational change (Turner, 1983; Martin and Turner, 1986), information systems (Pries-Heje, 1991; Orlikowski, 1993; Calloway and Ariav, 1995; Galal and Mc Donnell, 1997; Baskerville and Pries-Heje, 1999; De Vreede, Jones and Mgaya, 1999; Smit, 1999; Howcroft and Hughes, 1999; Urquhart, 2000; Hughes and Jones, 2005; Strong and Volkoff, 2010), marketing (Goulding, 1999, 2000; Gummesson, 2005) and product development (Burchill and Fine, 1997).

The GT approach in this thesis follows the principles of Strauss and Corbin (1998). This approach - versus the one proposed by Glaser (1978, 1998) – was selected for the following reasons.

Firstly, because of the literature review performed during the initial stage of this thesis, as well as the researcher's previous experience in the CRM field, this study clearly deviates from Glaser's recommendations, which require that the researcher enters the field with a completely blank canvas to work from (a criterion the researcher believes is almost impossible to meet). On the other hand, Strauss and Corbin (1998, p.53) see benefits in using the literature: "... literature can provide questions, initial concepts, and ideas or theoretical sampling. It can also be used as data (both primary and supplemental) or for making comparisons, and it can act as the foundation for developing general theory." This is exactly how the literature review was used, not only before the field work (e.g. informing the development of the semi-structured questionnaires) but also after the analysis phase (e.g. enabling comparisons between findings and the existing literature). However, the danger of a preliminary literature review is that it might influence the researcher before entering the field, therefore limiting his/her creativity. This danger is unavoidable, but nevertheless, the benefits of the literature review clearly outweigh this disadvantage in this case.

Secondly, although Glaser strongly asserts that Strauss and Corbin's data analysis techniques might distract the researcher from what the data has to offer by putting a fairly complicated additional layer between the data and the concepts, the advantages of their systematic data analysis techniques in generating a substantive theory were clear. Strauss and Corbin's (1998) techniques and procedures for developing GT provide a form of guidance and security. This has clearly outweighed Glaser's main criticism, which states that Strauss and Corbin's very systematic and structured approach gives the impression that they do not let the "data speak for itself" and let the theory naturally emerge, allowing excessive interpretation from the analyst. The chosen methodology (Strauss and Corbin, 1998; Urquhart, Lehmann and Myers, 2010; Gasson, 2004) is fully illustrated in the following sections and chapters.

### **3.4. A Process Study**

Time is a central theme in each case study. The three studies address questions about how and why individual CRM system use appears, develops,



regresses and sometimes terminates over time. Their focus is on the temporal progression/regression of CRM system use, and they look at the evolution of users' environment as elements of explanation and understanding (Langley, et al., 2013). More generally, a process approach sees IS implementation as "a sequence of stages and seeks to explain how and why change emerges, develops, and diminishes over time" (Wei, Wang and Ju, 2005). Temporality does matter in organisational studies (Markus and Robey, 1988; Markus and Tanis, 2000; Somers and Nelson, 2004). Recently, MacKay and Chia (2013) show that decisions that looked good at one time turn catastrophic at another as other events intervene. In the same vein, Monin, et al. (2013) show how in the context of a merger the balance between political and economic concerns evolves over time, and triggers different management strategies. This study of CRM system use over a long period is no exception. The collection of longitudinal, rich and varied data proved necessary to observe how post-adoption CRM system use and processes unfold over time, to study the influence of a changing users' environment on the evolution of CRM system use, and to develop a fine-grained understanding of individual use. For example, the researcher's process approach, distinct from the variance questions dealing with co-variation between dependent and independent variables, highlighted the non-linear progression of certain users, and the regression -back to nonuse- of others, as evoked by Van de Ven (1992) in his critique of the literature on process conceptualizations of organisational change and development. It also facilitated the identification of the appearance and disappearance of factors influencing usage along the post-adoption usage phases. Moreover, the examination of three CRM process stories allowed the researcher to strengthen his theoretical ideas by comparing –and not replicating- each case study.

The researcher did not rely on previously found IS stage models (e.g. Markus and Tanis, 2000) to conduct his longitudinal study, but built his own CRM system post-adoption stages based on the three case studies to follow the dynamics of system use change.

### **3.5. The Data Collection Process**

The following sub-sections introduce some key data collection techniques used throughout this research (i.e. unit of analysis, interviewees' selection, data sources, and data collection steps), and illustrate those techniques with examples taken from the three case studies.

#### ***3.5.1. Field Site and Unit of Analysis***

The first longitudinal research was conducted at a multinational producer of cigarettes during the implementation and use of a CRM system in one of its European countries. The "company" (the name of the company cannot be disclosed) was chosen for two reasons. Firstly, it was about to deploy a new CRM system at a local site in Europe when the researcher initially made contact, therefore giving the researcher the possibility of following the post-adoption usage phases from the 'go-live' of the system until about two years afterwards. This long period of study was definitively one of the main assets of this case. Data gathering was facilitated as the project was still "fresh in the minds" of the stakeholders and users. Secondly, the company's management was willing to provide the researcher with access to all needed resources (e.g. local and HQ staff for interviews, data and documents such as project meeting minutes, system logs, company presentations and system's change requests). This access to information was definitively another key asset. The company's top management was willing to cooperate and learn from this research, therefore facilitating access to numerous sources of information. The selected site was in Romania, where the company implemented one of the modules of the Siebel CRM system, namely its Territory Management System (TMS). The TMS objective was to support the planning, execution and tracking of the company's promotional and merchandising activities at reseller and customer sites. The activities supported by the TMS consisted of segmenting and prioritizing sales outlets, setting objectives for outlets in terms of assortment, space, promotion and merchandising management, planning field visits for the trade marketing associates (TMAs), and executing and reporting outlet visits. The TMS was implemented within the marketing department to support its field activities. It was mainly used by operational planners as a planning tool for territory management, weekly route definition and set up, objective and activity

planning and analysis of field activities, and by TMAs as a field marketing support tool for tracking their field activities and collecting outlet data (e.g. level of product inventories, number and types of merchandising tools available, level of contractual compliance of outlets). The CRM solution deployment occurred in April 2008, and was part of a worldwide roll-out. The unit of analysis was the Siebel user community in the marketing department and all subsequent analysis was based on the individual users within this department. This marketing department was divided into two sub-units: operations (mostly field people), and development and planning staff (planners). Each sub-unit was headed by a director. In total, these units represented a population of more than 100 users composed of three main user types: directors and their support staff (24 users), field staff (83 users), and operational and strategy planners (three users). Four main Siebel functionalities were used: sales, marketing, answers (ad hoc query tool) and analytics (business intelligence platform).

The researcher was not able to select a second case study within another subsidiary of the company, and had to select a second site based on the following criteria: similar CRM functionalities and user population, full access to information, project in a start-up phase, and similar industry sector.

The second research site met the first three criteria. Unfortunately, it was impossible to find a company within a similar industry sector. The researcher conducted this second case study at a Swiss higher educational institution delivering business bachelor and master programs. This research involved a company at the other side of the spectrum in terms of sector (manufacturing versus service), and management style (hierarchical versus laissez-faire approach). However, polar types may also be of interest (Pettigrew, 1990). The study spanned 13 months from September 2010 to October 2011. The school had recently acquired more than 60 Salesforce.com user licenses and was about to deploy an SFA and campaign management system to support its sales and marketing activities. This implementation was the second attempt to introduce a CRM system after an initial trial failed three years previously. This new initiative was sponsored by the recently appointed director of operations. However, the scope and the selected CRM system were different. Almost all sales and marketing departments were now involved, and the new tool was Salesforce.com, replacing the Microsoft CRM solution previously introduced in a

single department (Communications). The activities supported by Salesforce.com consisted of storing and managing contact information (i.e. students, alumni, recruiters, donors, and conference speakers), tracking marketing and student recruitment activities (e.g. interviews, meetings and fund raising activities), planning, executing and analyzing marketing campaigns (e.g. to prepare class reunions), and finally planning and tracking campus visits of prospective students. The last activity covered by the new CRM tool was tracking student visits to the infirmary or psychologists. This CRM system was implemented in the following departments: recruitment and admissions, fund raising, marketing and communications, medical staff, internship, and research team. The unit of analysis was the Salesforce.com user community working in the above departments. Together, about 60 school staff members were registered as users in the Salesforce.com application, and out of those 60 users the researcher selected a subset of 12, representing two key users in each department. In most departments, a manager and one of his/her staff were selected in order to get input from different hierarchical levels, similar to the initial case study. In addition to key users and their managers (all managers were CRM system users), the researcher regularly interviewed project team members (project manager and support coordinator) and the business sponsor. The selection of interviewees purposely reflected a diverse set of stakeholders, from the fundraising director's assistant up to the business sponsor, who was also a member of the executive committee.

The third case study was conducted at a Geneva based real estate agency selling luxury properties in prestigious locations in Switzerland and abroad. The researcher followed a six-member team during six months, from December 2012 to May 2013. This team was composed of five sales representatives and a CRM coordinator responsible for user support, competitive information gathering and e-marketing campaigns. The company's sales director introduced Salesforce.com at the end of November 2012 in order to standardize the tracking of her team's sales activities (leads, opportunities, customer follow-ups, and forecasts), improve sales and marketing efficiency and provide her and her team with increased visibility on sales efforts. This new CRM system replaced an ageing client database specifically designed for the real-estate sector but lacking advanced sales and marketing functionalities such as sales forecasts

and campaign emailing. This third implementation site shared similar characteristics with the previous two case studies in terms of deployed CRM functionalities (sales and marketing), access to information (full access to users, project documents and system log data), and start date of the analysis (just after deployment). Like for the educational institution, the researcher was able to interview people on a monthly basis in order to precisely map usage phases, user progression as well as factors influencing usage and their evolution along the various usage phases. Although the industry (real estate) and the size (six persons) were quite different from the previous case studies, the objectives of all three CRM initiatives were quite similar: process standardization, increased sales and marketing efficiency, improved customer data quality and performance tracking.

### **3.5.2. Data Sources**

“All is data” as long as it is relevant to the substantive area (Glaser, 1998). Throughout this research, the researcher used five main sources of information.

As the initial source of information, the researcher gathered more than 350 project documents. They covered all phases of the CRM initiatives, from the early stages of project initiation until the end of the research projects. The researcher signed a non-disclosure agreement with each of the three companies in order to benefit from unlimited access to their documents. Analyzed documents included CRM project presentations and progress reports made by the project manager, Microsoft Visio process maps, specifications and results of the 'proof of concept' phase, business requirements documents such as the project charter and the Request for Proposal (RFP), minutes of interviews held by the project team with the main stakeholders, presentations of the legacy systems to be replaced, workshops minutes, organisational charts, Microsoft Project plans, technical documentation (technical architecture, data models, data governance, integration with the company's other information systems, customization of the CRM system, data migration plans, security/access management issues, bugs and change requests reports), new functionalities required by users after the launch of the CRM system, emails exchanged during the course of the project and stored by the project team, user training documentation, and finally User Acceptance Testing (UAT) reports. The

researcher stored all documents and corresponding memos in QSR NVIVO, and used this abundant documentation in two ways. Firstly, he read the available documentation before the first round of interviews in order to familiarize himself with the project, the actors, the deliverables and the issues faced during and immediately following deployment. When necessary, he asked project team members and users to provide additional information on document contents and on his initial comments and analysis. Secondly, information contained in documents helped the researcher triangulate with other sources of information such as users' interviews and log data. The researcher did not perform a quantitative content analysis on those documents. However, he extracted open codes from them in the same way as he did for transcripts and memos. All documents gathered in this research were grouped in three main directories (Ozkan, 2004). The 'internals' directory included primary source materials such as audio interviews and their transcripts, field notes taken during interviews and meetings, and key papers relevant to this thesis. The 'externals' directory was composed of secondary documents such as general company information (e.g. annual reports and newspaper articles), training documentations, presentations made at the company's local and global headquarters, interview templates, and results of personal research conducted on GT and information system usage. The 'memos' directory contained the records of the researcher's thoughts and observations and was organised around a project journal composed of a day-to-day research diary, as well as conceptual, explanatory and theoretical memos.

Face-to-face interviews served as the second source of information. The researcher chose the interviewee profiles (departments, job functions and seniority) after reading the project documentation and defining who the main user groups were. The interviewees' population of each research project included a wide cross-section of users in terms of age (from mid-20s to mid-50s), seniority in the company (from two months to 12 years), and position (from junior staff to executive committee members). The researcher made sure to have a balanced representation of each of the departments involved in the CRM initiative. Whenever it was possible, he selected at least two participants per department in order to be able to cross-check their comments. The researcher held 135 interviews at the three research sites, with an average interview

duration of about 50 minutes. He based the initial round of interviews on the semi-structured questionnaire initially designed for the first case study.

The third source of information was the researcher's observation of participants working with the CRM system. Observation was mainly conducted as a follow-up to the interviews when users showed the researcher CRM system functionalities they used and the business processes automated by their new tool. The researcher did not conduct systematic observation of daily usage. Out of the 135 face-to-face interviews, 25 were followed by a demonstration of the CRM tool. Users were usually keen to show the CRM system in order to highlight issues such as user interface or data quality problems, but also benefits such as improved process efficiency or new online reporting and analysis capabilities.

The fourth source of information was CRM systems logs. The researcher tracked individual usage (e.g. who uses the system, which functionalities are used, how often each functionality is used). Monthly data were collected by the project manager, sent to the researcher, and stored in Microsoft Excel for further analysis. The researcher used CRM system usage statistics to track usage evolution of individual users, cross-check users' statements about their use, and trigger discussions during interviews. Whenever possible, the researcher decided not to gather self-reported usage data directly from CRM system users to avoid response bias and to allow him to gather a significant amount of data over a fairly long period without having to re-interview staff. The researcher gathered tool functionality usage and productivity gains through the CRM system logs. Table 1 presents a summary of the collected statistics for the first case study. The researcher collected measures related not only to the frequency of use or the number of functionalities used but also to individual productivity and business benefits. This fourth source of information brought multiple new insights into individual system usage. For example, Table 1 clearly shows that even though the TMS is used more frequently (items 1-3), better supports users' tasks and increases their productivity (items 4, 5 and 6), it does not provide significant business benefits at company level (item 7) after 19 months of operation. The researcher tried to systematically verify the statistics during interviews. The following excerpt from the interview with a trade marketing manager (TMM) illustrates the difficulty in moving beyond the

individual productivity phase and generating business benefits such as improved sales or market share, and therefore seems to corroborate the collected statistics.

“The benefits of the Siebel introduction were not really visible to me in 2008; they only came with the availability of better reports in 2009. Reports and dashboards bring more visibility on my business. I can better track the activities of my staff ... Does it help me achieve my objectives? Well ... not really but I am not now wasting time collecting data from different sources, they are almost all there in Siebel. For my staff, the functionalities of the analytics module such as trade segmentation and improved access to information have made them more professional, especially in front of customers. Unfortunately, data synchronization (updates) can only be done at the office during the night, therefore when my TMAs do not come back to office for a while they have outdated data... I believe we are not yet at the level where we should be with such a tool: I do not see any real benefits except increased productivity.”

The above statement is partially confirmed by one of his employees, who states that:

“I do not see much benefit from using Siebel for top management. Most benefits are for TMAs like me in terms of improved access to data and a better planning of activities. The other main benefit should be reporting but the module is so slow and difficult to use that this discourages people from using those analytics functionalities. I am more efficient, that’s it.”

	Statistics	Focus is on	May- July '08	Aug- Oct ' 08	Nov' 08- Jan '09	Feb- Apr' 09	May- July '09	Aug- Oct '09	Nov '09
1	Nbr of Analytics users logged during period	Functionalities used	7	18	24	27	28	29	31
2	Nbr of dashboards available to users	Functionalities used	24	20	27	29	40	68	82
3	Nbr of activity types created by users (to report customer visits)	Functionalities used	12	12	14	15	14	14	13
4	% of planned visits completed by field staff	Individual productivity	n/a	n/a	79%	75%	79%	93%	95%
5	Nbr of visited outlets by field staff	Individual productivity	7'514	8'027	8'960	9'520	10'038	10'302	10'021
6	Task accomplishment (planning, reporting, transactions) – qualitative	Individual productivity +: improving -: deteriorating 0: stable	-	+	+	+	0	0	0



	assessment.								
7	Local market share (%)	Benefits	27.8	26.5	25.7	25.2	25.1	24.5	n/a

**Table 1. Quarterly TMS Usage Statistics (Case 1)**

The fifth and last source of information was the researcher's participation in the company's internal meetings such as training sessions, project steering committee meetings, staff presentations about the CRM initiative, and department meetings. The researcher had access to all materials presented by the project team during these meetings.

### **3.5.3. Data Collection Steps**

The researcher changed the frequency of interview rounds after the first case study. He decided to go for monthly interviews instead of the two rounds held in June 2008 and November 2009 for the initial research. Beside this single but significant difference, the overall data collection process remained the same throughout the three cases. The researcher will now present the process followed during the first case study, and then explain the changes brought during the second and third cases.

For the first case study, the researcher conducted the data collection process in three steps. He initially collected internal project documents during step one, and then held two rounds of in-depth interviews in Bucharest in June 2008 and November 2009 (steps two and three). In addition, he interviewed the local project manager after each interview round in order to discuss his preliminary findings. He also held two additional meetings with the CRM global project team at the company's headquarters in Geneva (Switzerland): one at the beginning of the research (April 2008) to get an overall understanding of the company's objectives for implementing a TMS, and another one at the end of the research (January 2010) in order to present his conclusions and obtain company's feedback. During the research, the local project manager gathered monthly system log data and sent them to the researcher. The three data collection steps are briefly described below.

Before starting the interview process in Romania, the researcher scheduled an introductory meeting with the global CRM project manager in Geneva. His objectives were to gain a better understanding of the reasons, objectives and organisation of the TMS project, to identify the main TMS user types, and to gather training documentation and project meetings' minutes in order to learn more about the deployed TMS functionalities, the supported business processes and the challenges faced during the pre 'go-live' phase. He learned that the main objectives of the TMS project were to increase the efficiency of the field marketing staff, to improve the quality of collected customer data, to bring online reporting capabilities to field staff, and to replace the ageing legacy CRM platform with a more modern and customizable technology. Before the researcher's first onsite visit, the Romanian project manager briefed local management and interviewees about the goal of the research and the data collection process. Additionally, the researcher spent five minutes at the beginning of each interview introducing the research process and objectives. The researcher believed that it was essential that informants were approached tactfully and informed about the general nature of the research in order to gain trust (Goulding, 2002; Silverman, 2006).

For the first round of interviews (June 2008), the researcher used a semi-structured interview to conduct the interviews (Table 2). The questions covered the main subjects of the research, namely usage, usage evolution and its influencing factors. The questions were deliberately left open-ended so that at this early stage of the research no preconceived perceptions or opinions could influence the interviewees' answers. Moreover, even though the semi-structured questionnaire initially included nine questions, interviewees were allowed to jump from one area to another and talk about issues unrelated to the introduction of the tool. Glaser and Strauss (1967) and Glaser (1978, 1992, 1998) recommended this approach in order to let concepts "emerge" rather than "forcing" them into predefined categories derived from the experience of the researcher or his/her initial review of the literature. Thus, the first interview question ("What do you feel about the introduction of the TMS tool?") allowed interviewees to speak about the introduction of the TMS tool in general, before being introduced to the specific areas of the research.

1	What are your job function and main activities?
2	How long have you been working for the company?
3	What do you feel about the introduction of the TMS?
4	Were you using a similar tool previously?
5	Which TMS functionalities do you use? Which ones don't you use? Please explain why.
6	What are the TMS advantages and disadvantages? How do you plan to overcome the issues (if any) you just raised?
7	Does the TMS help you better do your job and achieve your objectives? Please explain.
8	Have you seen any evolution in your TMS usage since its deployment? What about in the future?
9	What do you see as factors (related to you, your company, your industry) influencing your usage, currently or in the future?

**Table 2. Semi-Structured Interview (Case 1, First Round)**

The initial sample of eight interviewees included the main representatives of the project team (the business and technical project managers), as well as key members of the user groups (management, TMAs, Leisure Channel Associates [LCAs], and the planning team). Eight people were considered as an optimal number for this first round, considering that the researcher had only two full days available in Bucharest. This left enough time between the interviews to immediately record notes, first impressions and comments. For the second round of interviews (November 2009), seven out of the eight people already interviewed participated again. An LCA did not show up for the interview. The researcher interviewed two additional managers in the marketing department in order to better understand their role and their impact on usage, as the role of management was found to be a key element affecting usage during the initial interview round. The researcher taped interviews for both rounds of interviews. However, he only transcribed interviews conducted in 2008. For the second round, he merely took notes during and just after interviews in order to record any insightful remarks from interviewees. The second questionnaire (Table 3) was more structured than the one used in the June 2008 round in order to allow a more direct follow-up on the initial findings. Interviewees were still allowed to cover personal topics of interest regarding usage and contextual factors even if not originally included in the questionnaire. The identification of post-adoption usage phases, the localization of users within those phases, the discovery of new factors influencing usage, their evolution over time and the assessment of benefits generated by the introduction of the TMS were the main objectives of

the newly designed questionnaire. As in the first interview round, the researcher wrote memos immediately after each interview.

1	19 months after the TMS introduction, please indicate the top factors still influencing positively or negatively your usage.
2	Are factors influencing your usage during the first months still valid? Which ones have now disappeared?
3	Explain why certain factors have disappeared.
4	Three usage phases were identified: adaptation, exploitation, and benefits realization. After 19 months, in which phase are you?
5	Can you give examples of your usage behaviour in each of these phases?
6	Please tell me what the TMS tool has brought to you (+/-)? (e.g. regarding task productivity or job objective achievement).
7	Do you use now the TMS differently compared to the first months of introduction (e.g. frequency, functionalities)? How? Why?
8	Have you seen an evolution of the benefits brought to you by the TMS? How? Why?
9	Do TMS data and functionalities help you improve the following tasks? 1. Customer visit planning 2. Access to product and customer information 3. Customer relationships 4. Customer analysis 5. Tracking of activities at customer site 6. Customer visit reports and follow-up 7. Customer and product information exchange with other company staff 8. Other administrative tasks? Please name.

**Table 3. Semi-Structured Interview (Case 1, Second Round)**

In summary, 21 interviews were conducted during those two rounds (Table 4). Interviews generally lasted from 30 to 90 minutes, and followed an informal protocol focused on eliciting information about the interviewee's job, work processes, and changes to those processes, and what he/she particularly liked or disliked about the TMS (Strong and Volkoff, 2010). In addition to those formal interviews, the researcher engaged in casual conversation before and after interviews as well as during lunches in the company's cafeteria. The researcher also held quarterly telephone conferences with the local project manager to track the evolution of the TMS initiative between the two interview rounds.

Interviewees	Location	April '08	June '08	Nov '09	Jan '10
Global PM	Geneva	X			X
Local PM	Bucharest		X	X	
IT manager	Bucharest		X	X	
Trade marketer associate 1	Bucharest		X	X	
Trade marketer associate 2	Bucharest		X	X	
Trade marketer manager	Bucharest		X	X	
Support coordinator	Bucharest		X	X	
Operational planner	Bucharest		X	X	
Leisure channel associate 1	Bucharest		X	X	
Leisure channel associate 2	Bucharest		X		
Merchandising manager	Bucharest			X	
Trade segmentation manager	Bucharest			X	
Total number of interviews	-	1	9	10	1

**Table 4. Interviewees (Case 1)**

For the second and third case studies, the researcher tried to correct the weaknesses identified during the first case study. Firstly, the researcher spent more time comparing interviewees' comments, behaviours and the resulting memos, with the intent to isolate the specific circumstances and facilitating conditions that could explain the different usage behaviours. Constant comparison is a key element in developing GT and the researcher felt that he could have focused more on this aspect during the initial case study. Secondly, the researcher held interviews more regularly, every four to eight weeks depending on staff availability. The increase in frequency made it easier for the researcher to follow the evolution of usage behaviours and to identify facilitating conditions and milestones. Because interviewees did not have to remember events that happened several months ago, they provided more accurate information. The researcher could gather almost 'real-time' data and did not have to rely on the memories of participants, as in the first case study. Respectively seven and four rounds of interviews were held during case studies two and three. Thirdly, the researcher better exploited some of the QSR NVIVO functionalities, especially when structuring collected longitudinal data. For example, the researcher coded each interview round separately by attaching a round-specific tag to each open code identified. He was then able to perform a detailed analysis of the evolution of the codes round by round. Fourthly, the researcher was granted full access to users, documents, and log data, as in the initial case study, but this time all user departments were represented. This was not the case in Romania, where the researcher interviewed only users based in Bucharest. Additionally, for both cases, the researcher was introduced to the

CRM initiative business sponsors who helped him better understand the business objectives of the CRM project. The researcher could not interview the business sponsor during the first case study, and felt that it was definitely a key weakness. The researcher unfortunately had only a few documents at his disposal during the third implementation. This lack of written documentation was not due to some kind of restricted access, but merely to the limited scope and complexity of the CRM project. The researcher was able to collect only a few documents: the user training presentation, the original business requirements document, the change request list, and post-implementation weekly sales activity reports.

The same set of interviewees was used throughout the second study. Three out of 16 participants left the company during the 13 month–research period, leaving a total of 13 participants at the end of the research (Table 5). Those remaining participants still represented the six user departments involved in the project. The researcher did not try to compensate for their departure by involving new stakeholders for two main reasons. Firstly, the sample of 13 was still representative of the departments and types of users (employees/managers). Secondly, as the main objective of this research was to track the evolution of usage by individuals since CRM deployment, adding new people in the middle of the project would not have added anything to this study.

	<b>Department</b>	<b>Function</b>
1	Marketing & Communications	Marketing Manager
2	Marketing & Communications	Marketing & Communications Director
3 (*)	Fund Raising	Fund Raising Director
4	Fund Raising	Fund Raising Assistant
5	Executive Committee	Director of Operations
6	IT	Project Manager
7	IT	Support Coordinator
8	Admissions & Recruitment	Recruitment Manager
9	Admissions & Recruitment	Admissions & Recruitment Director
10	Admissions & Recruitment	Recruitment Officer
11 (*)	Admissions & Recruitment	Recruitment Officer
12	Medical	Nurse
13	Medical	Psychologist
14 (*)	Research	Research Assistant
15	Research	Research Analyst
16	Internships	Internship Officer

**Table 5. Interviewees (Case 2)**

**(\*) People who left the company during the research project**

The user population of the third case study originally included five sales representatives and the CRM administrator. Two sales representatives were based in Verbier, while the rest of the team was located in Geneva. One sales representative left after the second round of interview, leaving the researcher with five participants. The sales manager (who was also the CRM business sponsor) did not want to participate in the research project, claiming that she was not a user of the newly deployed CRM system.

### **3.6. The Coding Process**

Strauss and Corbin (1998) propose three coding phases: open, axial, and selective. The researcher will now briefly introduce their principles in the next three sub-sections. Further explanations will be provided in chapters four, five and six.

#### **3.6.1. Open Coding**

During this initial analysis phase, the researcher examines the text (e.g. the transcript of an interview or the minutes of a meeting) for salient themes potentially explaining the phenomenon under study. Those initial themes are called open codes. Open coding is the process of breaking down, comparing, conceptualizing, and categorizing data (Boudreau and Robey, 2005). The researcher may come up with tens or even hundreds of open codes, also called *in vivo* codes, as they are derived directly from the language and terminology used by participants (Gasson, 2004). The researcher then gradually categorizes these open codes into fewer, more meaningful and conceptual categories as the collection and analysis of data jointly progress. These categories are labeled using terms that are more abstract (theoretical) than the terms used by the interviewees (*in vivo* code). For example, in the first case study the category “management’s involvement” was created in order to regroup the following open codes: CRM product champion, communication of CRM benefits, support, control and pressure from direct supervisor, and selection of the right staff profile. Categories form the theoretical bones of the analysis, later enriched by their properties (or features) and dimensions (possible values of the properties). For example, one of the properties of the category entitled “management’s

involvement” was labeled “supporting their teams in their daily use of the CRM system,” whose dimensions were: never, occasionally and regularly. Each category carries multiple properties, and each property has several dimensions. After identifying the main categories, the last step of this initial analysis phase is to look for patterns between the categories (i.e. commonality, association, causality). Examples will be provided in the next chapters.

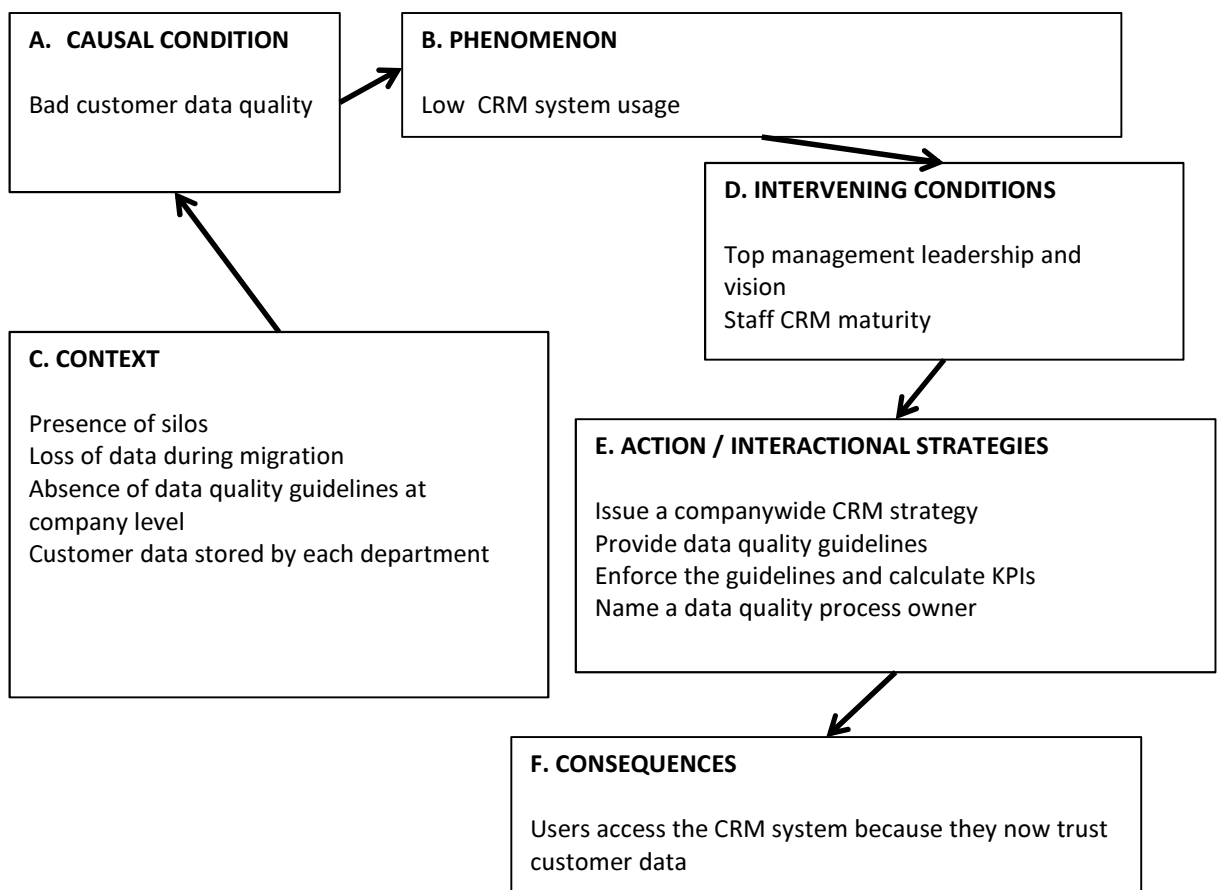
These open codes were all related to the research questions listed in the first chapter, and more specifically to the following five themes: post-adoption usage phases, user behaviours, user transition (across phases), factors influencing usage, and evolution of those factors. The researcher found 83, 110 and 51 open codes for respectively the first, second and third case studies. Chapter four will detail open codes.

### **3.6.2. Axial Coding**

The purpose of axial coding is to begin the process of reassembling data that were fractured during the initial phase of open coding. Axial coding allows data to be recombined in a structured manner in order to identify the causes of the phenomenon, the context in which they appear, and the actions to solve the phenomenon and reach the objective. Strauss and Corbin (1998) argue that by asking questions such as “Who, when, why, how, with what results and consequences,” the researcher can relate structure to process and then start fitting the parts of the jigsaw puzzle together. Figure 1 illustrates the axial coding process designed by Strauss and Corbin (1998) for a category called “bad customer data quality.” It shows the six building blocks of their model and their interrelationships: causal condition (A), phenomenon (B), context (C), intervening conditions (D), action/interactional strategies (E) and consequences (F). Some brief explanations about Figure 1 follow. The issue to be studied is the usage of CRM systems (B. Phenomenon) and one of the causes influencing this phenomenon is the bad quality of customer data stored in those systems (A. Causal condition). The number of causes is intentionally limited to only one (bad data quality) for illustrative purposes, but most of the factors influencing usage and identified as key categories should be listed under the “causal conditions” heading. The presence of silos, the loss of data during migration, the absence of data quality guidelines, and the individual storage of data by



each department (C. context) have been found as specific conditions under which the phenomenon occurs. The improvement of CRM system usage by implementing specific measures such as issuing a company-wide CRM strategy, providing data quality guidelines, enforcing the guidelines and calculating key performance indicators (KPIs) to track progress, or naming a data quality process owner (E. Action / interactional strategies) can be facilitated or constrained by intervening conditions (D. intervening conditions), such as top management leadership and vision as well as staff CRM maturity. Finally, the consequences (F. consequences) of potential solutions (e.g. users accessing the CRM system because they now trust customer data) are the outcomes of action/interactional strategies. Chapter four will detail all axial categories and their relationships.



**Figure 1. Illustration of Axial Coding (Case 2)**

### **3.6.3. Selective Coding**

The final stage in the process of theory development is the construction of a core category. The researcher starts this stage when he notices that he cannot find any new categories, properties and dimensions or relationships in the data he collected and analyzed from the case studies (theoretical saturation). The core category must offer an explanation of the CRM system usage behaviour under study. Goulding (2002) specifies the criteria that a core category must meet: it must be central and account for a large proportion of behaviour, it must be based on reoccurrence of the data, a core category takes longer to saturate than other categories / concepts, it must relate meaningfully to other categories, the theoretical analysis should be based on the core category, it should have clear implications for the development of formal theory, and it should be highly variable and modifiable.

This aspect – making it all come together – is probably the most difficult part of the analysis. Open and axial coding are somehow “mechanical” parts. Now is the time when “data become theory” (Strauss and Corbin, 1998, p.144). Selective coding is the process of integrating and refining axial categories so that the analyst ends up with “core” categories ultimately explaining the phenomenon under study and becoming the basis for GT. Selective coding starts only when the researcher is sure that he has found the core variable(s) accounting for most of the variation in a pattern of behaviour. Chapter five highlights the main categories found in each case study, while chapter six aims at finding a core category valid across all cases and potentially explaining overall CRM system usage.

## Chapter 4. The Data Analysis Process

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Data analysis was based on the three types of coding suggested by Straus and Corbin (1990): open, axial, and selective coding. Before describing and illustrating the development of those codes, the next five sections will briefly discuss other key elements of the analytical process: interview taping, memo writing, research iteration, theoretical sampling and saturation, and longitudinal design.

### 4.1. Interview Taping

Glaser (1998) strongly advises researchers, especially solo researchers, not to tape interviews for the following reasons. The time spent typing the transcripts might considerably delay the coding and analysis phase, which should occur immediately following the interview. Taping might also lead to an overemphasis on the interviewee's words versus the interviewer's observations. Furthermore, interviewees might simply be uncomfortable in front of a tape recorder. Despite Glaser's recommendations, the researcher decided to record the interviews for three reasons. Firstly, because his DBA supervisors might want to listen to some of the interviews in order to evaluate how he conducted the interviews. Secondly, the researcher did not have extensive experience as an interviewer/field note taker. So having the whole interview at his disposal was a safety net, allowing him to review interviews weeks later. Finally, taping interviews could compensate for incomplete or even biased note-taking. However, in order to make the interviewee more comfortable, the researcher asked permission to tape the interview (no one declined), and clearly stated that the recording would not be provided to his/her company management. The researcher stored all audio records and their transcripts in QSR NVIVO.

### 4.2. Memo Writing

The researcher wrote three types of memos during the analysis phase.

He first wrote a one-to-three page memo after each individual interview, partly based on hand-written notes he took during the interview and partly with notes

he took at the end of each interview day. Each memo was structured into two parts. The first part summarized the interviewees' main ideas as well as the researcher's overall comments. He wrote those memos very shortly after the interview – always within the same day – in order to accurately record initial impressions and users' answers. The second part of the memo listed the initial open codes derived from the interviewee's main ideas and the researcher's analysis.

The second type of memo detailed the open codes identified consistently across several interviews. Those memos were written as soon as new codes emerged in order to provide an initial definition of the code, state the conditions under which the code emerged, and define the relationship (if any) between this code and other previously found codes. For example, with regard to factors influencing usage, the researcher created 19 memos during the first case study around the following subjects: user participation in project, tool functionalities, role of top management, tool flexibility, pressure from competition, tool adaptation to business model, training strategies, tool complexity, presence of a company product champion, customer environment, change management, objective achievement, user profile and skills, tool technical stability, role of the direct supervisor, increased job scope, costs versus benefits analysis, buy-in process, and team unity. Those 19 memos highlighted the main factors mentioned by interviewees as having the potential to impact usage.

The researcher wrote a third type of memo during the axial and selective coding process. This memo was less descriptive and more conceptual as the researcher was getting closer to the core category. For example, the researcher composed a short memo entitled "misfits" (Figure 2) in order to capture the emerging notion of the misfit or gap between users' expectations and needs and what the CRM system actually delivered. The researcher noticed that when the misfit was large for a specific user, his/her usage of the CRM system was often low.

There is a striking difference in the utilization of the TMS between TMAs and LCAs. When we compare the factors influencing their respective use of the TMS we clearly see that the misfit between their expectations/needs and what the TMS delivers is much smaller for TMAs than for LCAs. The differences occur with the functionalities, the data, management support, personal commitment, etc. More important than the pure intrinsic added value brought by the TMS, it is the misfit between users' expectations and delivered functionalities that seems to drive usage. Users do not care about "super-duper" functionalities developed by brilliant IT geeks; they just want what they need to do a good job. No more but for sure no less. Users often compare needs versus available functionalities, costs versus benefits, effort versus pay-off. The higher the misfit, the lower their CRM system usage.

**Figure 2. Memo: The Misfit Concept (Case 1)**

All memos were stored in QSR NVIVO. Their related open codes were sorted in QSR NVIVO, and then regrouped around more conceptual categories when the researcher moved from open to axial and finally selective coding.

### **4.3. Research Iteration and Constant Comparison**

GT generation is highly iterative, constantly cycling between coding, synthesis and data collection. Constant comparison is the process of constantly comparing instances of data labeled as a particular category with other instances of data in the same category (Urquhart, Lehmann and Myers, 2010). QSR NVIVO facilitates the iterative GT process by allowing the researcher, at any stage of the process, to record thoughts in memos and to store them in the research journal. For example, the notion of misfit gradually came up after grouping numerous memos where codes such as 'delta', 'gap', 'missing functionalities', or 'inadequate support' constantly appeared, and then identifying and comparing the usage level of interviewees expressing this misfit against the rest of the user population. QSR NVIVO allows the researcher to link memos to documents, interviews or simply codes in order to start building relationships between emerging concepts. More concretely, it allowed the researcher to tag users who expressed a gap between their needs and the functionalities delivered by the CRM system, and then follow their usage behaviour along the post-adoption usage process. The researcher does not need to collect all required data before being able to start his analysis. In this research, the first open codes (i.e. management support, training assimilation) appeared right after the first interview. Because all raw data and analysis are

stored electronically, it is easy with QSR NVIVO to conduct searches, do counts on code frequency and visualize links between elements. However, it must be noted that QSR NVIVO does not perform the analysis - it only helps the researcher store and structure the data, and visualize the connections between concepts, therefore maximizing the efficiency of the process. For example, QSR NVIVO makes it easy to check how many times a particular open code is coded across memos, and then to review each memo to grasp its context, and start making comparisons.

Another helpful analytical technique provided by QSR NVIVO and used throughout this study is the ability to attach characteristics (attributes) to and relationships between interviewees. The researcher attached user characteristics such as male/female, employee/manager, and field/headquarters (HQ) to each interviewee. For example, the supervisor/supervisee relationship was carefully evaluated in order to link the behaviour of a manager (e.g. supporting role) to the level of usage of his/her staff.

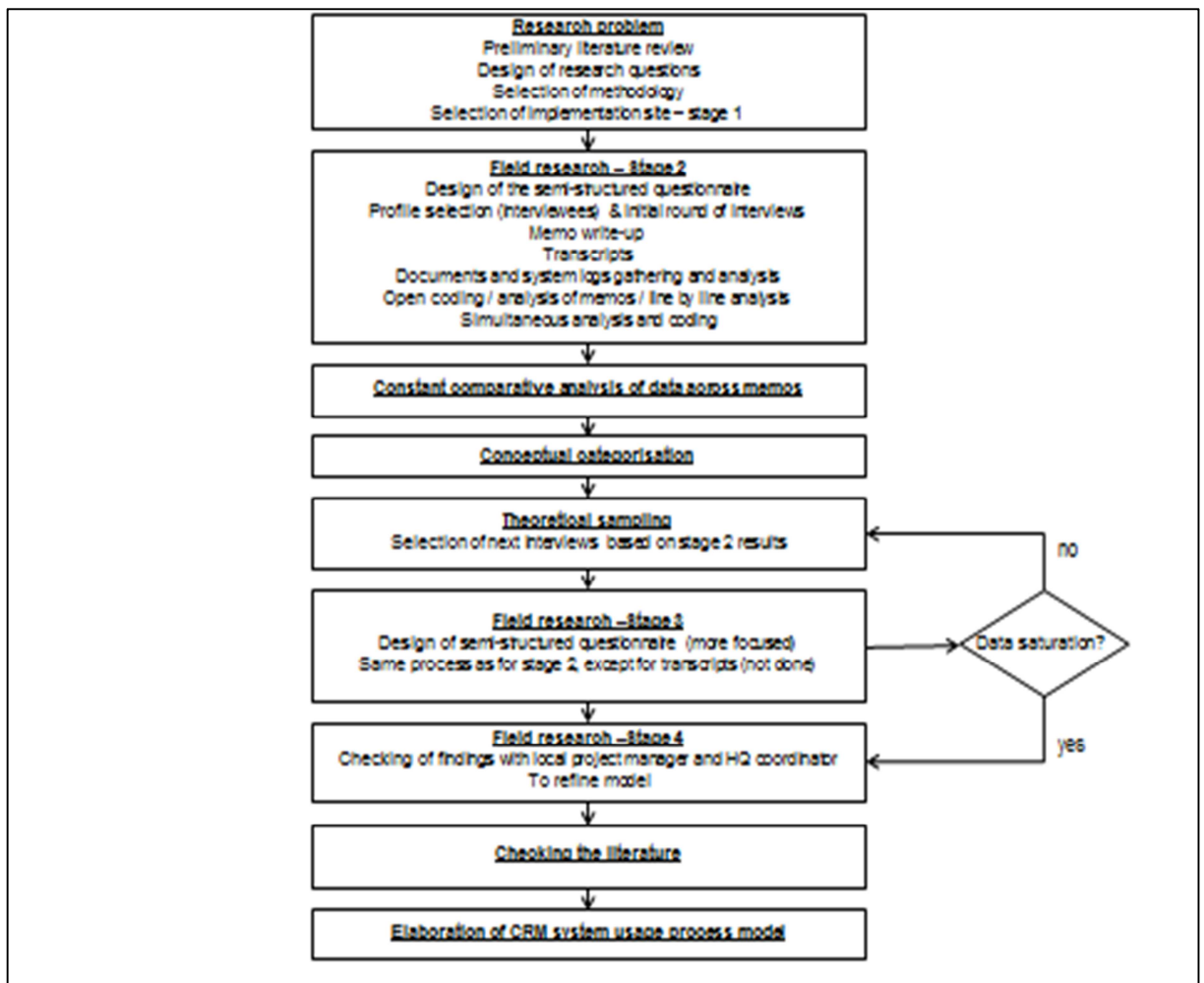
The last feature used in QSR NVIVO was coding stripes. This allowed the researcher to see which text coded with certain nodes was also coded at other nodes, therefore facilitating constant comparison, a key feature of GT. For instance, regular comparisons were made between staff and management, between employees of different business units or between users who were involved or not in the project phases in order to identify different levels of CRM system usage based on user characteristics.

#### **4.4. Theoretical Sampling and Saturation**

The GT analyst “jointly collects, codes and analyzes his data and decides what data to collect next and where to find them, in order to develop his theory as it emerges” (Glaser, 1978, p.36.). This process is called theoretical sampling. Throughout each of the three case studies, the researcher’s purpose was to go to places, people or events that would maximize opportunities to discover variations among concepts and to densify categories in terms of their properties and dimensions (Strauss and Corbin, 1998). An example of theoretical sampling is when the researcher included more managers in the initial case study’s

second round of interviews after discovering during the first round that the differences in staff usage among departments were mainly due to the manager behaviour. Another example is the selection of the second and third case studies. The researcher chose two cases that were similar to the initial site in terms of CRM system functionalities, user population, and system launch date. This homogeneity definitely contributed to more robust cross-case findings. Cases two and three were not chosen randomly, but within a sales and marketing environment in order to potentially strengthen the initial implementation site findings.

GT closure is guided by the concept of saturation, which is reached when the researcher cannot identify any new themes, categories or relationships from each new analysis. In each of the three case studies, the researcher stopped collecting data when he could not see any new open, axial or selective codes appearing in his interviews, and when usage behaviour did not evolve during a few interview rounds. This explains why the third case ended after only six months. The researcher was not able to find any new codes and concepts, and the last two interview rounds did not show any evolution in usage behaviour. The point at which theoretical saturation is reached is best described as the point at which diminishing returns are obtained from new data or new refinement of categories, and that no new significant insights can be discovered (Gasson, 2004). For example, the researcher decided to stop the theory building process after realizing that the notion of misfit and its multiple misfit types could explain not only existing data but also all new data he could gather and analyze in subsequent interviews. Figure 3 summarizes the first case study's research process, which was not as linear as the figure indicates. There were multiple iterations between each part of this process, as new data were gathered and analyzed, forcing the researcher to review/challenge his initial concepts.



**Figure 3. Research Process Overview (Case 1)**

#### 4.5. Longitudinal Design

Each case study spans a research period ranging from six to nineteen months. The start of the field research always occurred within the first month of the implementation in order to capture information right at the beginning of the usage phase. The decision to stop collecting data was dictated by the fact that no evolution was observed for a certain number of months, more specifically when a status quo in usage and in the evolution of influencing factors was reached: this explains why the duration of each case is different.

The researcher tracked the following variables across time to spot their individual evolution and identify their potential relationships. He explored the firm's environment (context), CRM system usage (content), and user behaviour across post-adoption usage phases (process of change), and their



interconnections through time to uncover changes that were not (almost never) as linear as stakeholders might have expected during their initial project planning. This analysis process is similar to what Pettigrew (1990), Glaser and Strauss (1967), and Strauss (1987) suggest regarding practicing longitudinal research in organisational settings. The different techniques and tools used to track temporal trends and to compare interview rounds are discussed below.

Only during the first case did the researcher resort to retrospective analysis. The researcher and the company had decided to conduct two rounds of interviews, the first one just after the go-live date and the second one more than a year later. During the second round of interviews the researcher soon realized that looking back at the past 12 months was no easy task for interviewees and that many of their comments were not supported by concrete facts. Interviewees did remember key factors influencing usage but the level of detail needed to illustrate the post-adoption usage process was not satisfactory. After noticing the drawbacks of such an approach, the researcher subsequently captured all data in real time through regular monthly interviews, document analysis, system log extracts and observations. The increased interview frequency enabled him to capture more precise changes in usage together with their causes and consequences within the firm's context, and to adapt the content of interviews to the evolving situation. The increased frequency of data collection and analysis greatly improved the sensitivity of the analysis and the identification of change.

In order to record and then analyze the monthly interviews, the researcher created a QSR NVIVO folder for each round of interviews. Notes were taken and coded after each interview and then summarized at the end of each monthly round. All gathered data were time stamped (day/month/year) so that the researcher could precisely trace any evolution or disruption in individual system usage over the long period of the case study. The researcher could therefore more easily compare the findings of each round of interviews and highlight trends in individual CRM system usage and in factors influencing system use.

As previously stated, each round of interviews was considered as a sub-project. The researcher conducted a detailed analysis of factors influencing usage and

user behaviour for each round and made a systematic comparison between rounds. This approach made it easier to compare key factors influencing usage across rounds of interviews. The researcher's objective was to rank factors influencing usage after each round of interviews (based on the number of times each factor was coded) and then to compare the ranking of factors over time, as shown in Table 6. By using this simple relative ranking grid, the researcher could easily track the evolution of influencing factors over time. In the example below (extracted from the second case study), the researcher identified ten factors influencing usage (F1 – F10), and ranked them in order of importance from 1 (highest) to 10 (lowest) after each round of interviews based on the researcher's assessment of their relative impact on usage. In this way, the researcher not only identified the top factors over a period of time, but also observed the evolution of each factor over time.

Factors influencing usage - ranking		R1	R2	R3	R4	YTD Ranking
F4	role of manager	5	2	1	2	1
F5	project management (pre go live)	1	3	2	9	2
F1	data quality	4	4	4	4	3
F7	tool	6	1	7	3	4
F2	silos	2	5	6	6	5
F10	CRM programme management (post go live)	10	9	3	1	6
F3	laissez faire	3	6	8	8	7
F6	business competencies	8	7	5	5	8
F8	mandatory usage	9	8	9	7	9
F9	user antecedents	7	10	10	10	10

**Table 6. Factors Influencing Usage: Ranking (Case 2, Round 4)**

This very simple analysis allowed the researcher to identify the main factors influencing usage and their evolution over time. This was especially useful in spotting new factors or observing other factors fading away after a few months. It also helped the researcher better focus interviews after discovering new trends, and therefore ask for users' explanations or triangulate them with other sources such as system logs.

However, it must be stressed at this point that the code count was heavily mitigated by the researcher's knowledge and analysis about the real importance and effect of each code on usage. For example, even though the CRM system (F7 – Tool) was often mentioned during interviews (e.g. minor bugs, usability issues, initial lack of reporting, etc.), it could not be considered as a major inhibitor of usage; it is common that initial remarks from users are about the

deficiencies of the tool. Further analysis proved that this factor was of no real importance in using the CRM system.

The researcher also performed monthly usage tracking at the individual CRM system user level. For each round, he reported the usage phase the individual user was in. This analysis was conducted based on the usage phases identified in the initial case study. For illustrative purposes, the researcher has provided an analysis in Table 7 that shows that certain users discontinued tool use after an initial “trial” (e.g. Bob), while others continued their progression and used more sophisticated tools, therefore generating productivity gains (e.g. Ilka, Nanda). It is worth noting that no user reached the “S3 benefits generating” phase after four months.

	<b>round 1</b>	<b>round 2</b>	<b>round 3</b>	<b>round 4</b>
<b>Frouke</b>	S1	S1	S1	S0
<b>Lucilla</b>	S1	S2	S3	S3
<b>Isabelle</b>	S0	S1	S2	S2
<b>Ylka</b>	S1	S1	S2	S2
<b>Paola</b>	S1	S1	S1	S1
<b>Virginie</b>	S1	S1	S1	S1
<b>Bob</b>	S1	S0	S0	Left
<b>Andrea</b>	S1	S2	S2	S2
<b>Myriam</b>	S1	S1	S1	S1
<b>Adriana</b>	S0	S0	Left	Left
<b>Christopher</b>	S0	S1	S1	Left
<b>Nanda</b>	S1	S2	S2	S2
<b>Mark w.</b>	S0	S0	S0	S0
<b>Stage 0 S0</b>	<b>No usage</b>	<b>Left = Left the company</b>		
<b>Stage 1 S1</b>	<b>Adaptation</b>			
<b>Stage 2 S2</b>	<b>Productivity</b>			
<b>Stage 3 S3</b>	<b>Benefits</b>			

Table 7. Individual User Status (Case 2, Round 4)

## 4.6. Open Coding

The researcher will now review all open codes gathered during the three case studies, and categorize them in to five research themes: factors influencing usage, post-adoption usage phases, user behaviours, user transition, and evolution of factors influencing usage. He decided to list all open codes for each case study in order to illustrate the fastidious, repetitive but crucial initial phase of data collection and analysis, and highlight some key differences that will later emerge in the axial and selective coding phases. The next 40 pages are a detailed description of open codes found in each of the three case studies. They are systematically backed up by users' comments and researcher's analyses.

### 4.6.1. Theme 1: Factors Influencing Usage

The researcher will first introduce all open codes found in each case study, and then group them into seven main categories: management role, project management, data quality, organisational silos, individual commitment, realized benefits, and communication of benefits. Each category will be explained, and backed up by users' comments.

#### Open codes found in the three case studies

The factors influencing usage discovered during the initial case study can be found in the Diffusion of Innovation (DOI) and the Technology-Organisation-Environment (TOE) framework literature. The 21 open codes can be grouped into the following three categories: organisation, environment and technology contexts, as per the TOE framework (Table 8).

TOE Framework categories	Open Codes
Technology	Tool usability – tool usefulness – tool compatibility with previous application – tool learnability – existence of workaround applications – existence of competing applications – improved data sets (coverage and quality) and functionalities (reporting) – tool flexibility (centrally controlled vs. local requirements)
Organisation	Size and complexity of business – firm's commitment: CRM product champion – firm's commitment: communication of benefits – role of management: support, control, pressure – recruiting: selecting the right profile – compensation

	policies: project team – project management skills: e.g. requirements gathering, tool testing – user support and training – work mode between HQ and local market: cooperation vers conflict – personal commitment - personal business acumen
Environment	Competitive pressure – Customer environment

**Table 8. Open Codes: Factors Influencing Usage (Case 1)**

Among the 21 factors influencing TMS use, six seem to be particularly influential as they consistently appeared in all interviews: the role of the direct manager, firm’s communication of TMS benefits, users’ realized benefits, individual commitment, data quality and user support. They will be developed later in this section.

The researcher identified 19 open codes explaining individual usage during the second case study (Table 9).

TOE Framework categories	Open Codes
Technology	Tool functionalities - tool technical stability - tool usability - tool usefulness - tool learnability - user IT antecedents - existence of workaround applications - complexity of business processes to automate.
Organisation	data quality - departmental silos - a “laissez-faire” policy by top management - the role of the manager - pre go-live project management skills - business acumen - mandatory versus non-mandatory usage - post go-live programme management - profile of the CRM business sponsor - support and training from the project team - recruiting the right profile
Environment	None

**Table 9. Open Codes: Factors Influencing Usage (Case 2)**

Using the TOE framework as a reference, the researcher found eight open codes in the technology dimension, eleven in the organisation dimension, and none related to the environment context. For example, no interviewees mentioned competitive pressure and customer requirements – previously found in case one - as influencing factors. This finding is not surprising when we consider that the IS department led the CRM initiative. In fact, increased internal efficiency through process automation, process standardization and customer

data consolidation were clearly at the heart of the CRM system roll-out, at the expense of sales and marketing objectives. Two of the main objectives of any CRM project (sales and/or market share increase and improvement of customer relationship) were never addressed by the business sponsor and the project team during the 13-month study. When asked about the reasons for the CRM project, the business sponsor explained:

“Departments work in silos ... We must harmonize CRM processes around a single tool and a single database. We use the tool (Salesforce.com) as a catalyzer in order to draw attention on inefficient processes and disconnected departments because our initial business analysis has shown that they are two major weaknesses in our institution... We want to decrease internal costs by reducing headcount. The CRM tool will automate some resource intensive processes such as marketing campaigns and student and alumni data updates. We will be able to reduce headcount in some back-office departments ... There are no quantitative objectives like in an ERP project, we should aim for better processes, and the tool will help us with the best practices it provides.”

The researcher identified top factors influencing CRM system use by using two simple techniques. First, he did a word count for each of the 19 factors based on transcripts, notes and memos and ranked each individual factor (1 = highest count / 19 = lowest count). He then provided the unranked list to users during the last round of interviews and asked them to name and to rank the five most influential factors. The researcher found a strong correlation between the quantitative (word count) and qualitative (interviews) techniques in terms of factors, however, the ranking slightly differed among users, depending on their respective department. The top five factors consistently mentioned were (in order of decreasing importance): the role of the manager, pre go-live project management, data quality, tool functionalities and technical stability and departmental silos. They will be developed later in the corresponding categories.

During the third case study, the researcher identified 14 open codes explaining individual usage: data quality, mandatory versus non-mandatory usage, silos (unwillingness to cooperate), role of the manager, tool functionalities, tool usability, tool usefulness, tool technical stability, user support and training, user IT antecedents, business acumen, personal motivation, personal benefits, and project management practices (gathering of business requirements and user

acceptance testing). Not surprisingly, all factors were already found in the previous two cases. Out of those 14 factors, tool usefulness and unwillingness to cooperate appeared in all interviews. Users systematically mentioned that they did not need such a complex tool to manage their customer and property portfolios, especially during a recession period when new prospects and deals were rare. Salesforce.com did not provide any benefits compared to the previous tool. Furthermore, the much needed functionality of search was not well handled by the new CRM tool.

“We (sales team) now have a bazooka to kill little flies. More importantly, an important feature is missing in our new CRM tool. We need good search capabilities to search our clients and properties based on a diverse set of criteria. This would make our new tool a working solution ... It is currently a useless piece of software.”

Faced with an inadequate system, data loss during migration, and reluctant to share their precious contact information, users did not use the CRM tool as originally planned by their sales director.

After introducing the open codes found in each individual case study, the researcher will now group them into seven categories that seem to correspond to the main CRM system usage influencing factors.

### **1- Management Role**

Clearly, more usage results when the direct supervisor proactively supports CRM system use, and exerts some form of control/pressure over the staff, as illustrated by the following comments (case one):

“I (TMM) have included in each of my staff job description an objective related to the quality and timeliness of data entered in Siebel. I regularly control all their data entries, and I get good results! Anyway, they have no choice as I also need to report those numbers to my boss ... But I also provide my staff with some support when they need it. When I do not know the answer, I ask them to call the support team”.

“My manager (Leisure Channel Manager [LCM]) does not ask for reports, so why should I use Siebel? He does not even have a laptop, and he has never attended any Siebel training. I guess he just does not care. So why should I care? I just enter some minimum information and everybody is happy ...”

The role of the manager was the number-one reason for using or not using the CRM system in the second case study. Whether the manager was the user’s

direct supervisor or the department director, his/her actions significantly influenced tool use in his/her department. Explaining, training, supporting, motivating, controlling, rewarding (or lack of) were verbs users often used when describing the manager's influencing role. Mandating system use was left at the discretion of each department manager, since the business sponsor did not have the authority to impose the tool. Only the president had enough authority, but did not want to be involved in this project, which he believed was not strategic. The following interview excerpts illustrate two different managerial behaviours and clearly show why there were significant differences in usage among departments.

"I (recruitment manager) organise a weekly CRM meeting where open issues are discussed. We look at process and data issues and try to solve them during this meeting. If we cannot, then I take ownership of the problem and raise it to the support team ... I manage a list of change requests and prioritize them before meeting with the support team. All my team members use the tool and I make sure they are motivated ... They must use it as usage is part of their evaluation."

"I (fund raising assistant) should enter all our contacts and activities in Salesforce.com. I think it is a good thing but it comes on top of all my current tasks. Then what should I do? Get rid of some current activities so that I can spend half a day per week on Salesforce.com? ... My manager does not say anything about it, he wants me to do it all ... I simply do what is more urgent and Salesforce.com is not that urgent as I have already the information in emails or in my head ... I think that somebody should write guidelines and make sure they are followed by everybody. It is not the case now."

The involvement of top management was more pronounced in the second case study compared to the first. This time, the business sponsor was involved in the project. He actively led the project steering committee and took part in all major decisions. Unfortunately his background (previously head of IT and now head of operations) did not fit with a CRM initiative. Most user departments did not agree with some of his key decisions (e.g. implementing a tool before setting up a coherent, companywide account management strategy), and gradually lost faith in his CRM/business management skills. The director of admissions bluntly put it:

"He (the business sponsor) is an IT guy. He is probably very good at technology, but does not understand our business (education) and our processes. He has a technology centric view of things, and does not want to talk about the consequences of his decisions on internal users and students. He represents IT not the business ... The head of sales and marketing would have



been a much better CRM advocate, but I guess he refused to take on this task as he is still associated with the previous CRM failure.”

In the same vein, the lack of usage guidelines and control by management reinforced the selfish and opportunistic behaviour of users in the third case study. The sales director delegated most of her management responsibilities (CRM guidelines issuance, and staff motivation, support, and control) to her CRM coordinator who did not have the authority and credibility to ensure an appropriate use by the sales team.

## **2- Project Management**

Four main issues related to project management impacted usage.

Firstly, training sessions did not meet users’ needs in the first and second case studies. They were not customized to departments’ specific processes, and did not include any thorough hands-on sessions: users only practiced when they were back in their offices. Training sessions were delivered too early (e.g. five weeks before actual usage for the second case study), a time long enough for users to forget the main functionalities. Finally, the initial training only focused on how to enter and retrieve data (“the mechanical part”) and did not explain to users what the realized benefits would be for them, their departments, and their company.

“I (admission officer) participated in the training session which lasted only 45 minutes. All I saw was the main screens and where to enter and find data. None of our processes were shown. I have now a couple of slides which are specific to my department and I guess I need to practice. It was so badly handled ... it is not that bad for me, as I already worked with Salesforce.com for a school in the U.S. but ... it is still painful. ”

Secondly, the testing phase was not properly managed in cases two and three, and some of the functionalities did not work during the first months. No major business processes were impacted (except for reporting in the first case study, and recruitment in the second), but smaller problems still slowed down users in their day-to-day activities. The same admission officer stated:

“I cannot use Salesforce.com for my recruiting activities. For admissions it is fine but for recruiting I am still missing fields and I have just lost data ... I do not know where my data is now. I have decided not to use the recruiting functionalities until this problem is solved. I have escalated it to my manager. Up to her to solve this if she wants me to use Salesforce.com ... We spent

weeks discussing with IT people about our processes and it just does not work. Frustrating.”

Thirdly, the support team was clearly too small to help users adequately during the initial introduction weeks (cases two and three). For example, only one person was assigned to support 60 users in the second case study, and he was mostly focused on the recruitment and admissions teams, where the most complex processes were implemented. To face this resource shortage, the project manager allocated 20% of his time to user support and outsourced the remaining support activities (0.5 FTE) to the third-party software provider, but this was not enough. Clearly, the project team did not design a change management program to accompany departments in their transition from paper and pencil (or sometimes Excel) to a sophisticated CRM tool. Users initially suffered from this lack of ongoing support. The following examples illustrate two cases where users lacked support:

“I (fund raising manager) honestly do not know if somebody cares about me using salesforce. My boss (the president) does not care. When I have an issue, the support team always tells me that they have no time. I am not a key user and I need more help to figure out how to use this tool ... MS Outlook was enough for me ... so, why should I bother?”

“I (research analyst) should use the CRM tool to send marketing campaigns. My manager and I did not participate in the initial training session. I think we were not even on the distribution list ... I got some support not from the project team but from somebody I know in the Communications department. But it was not enough to be totally independent. I must do it all by myself. It is like a fishing expedition. I try, I discover, I succeed, I fail ... I am an optimistic person but there is a limit. So far I have not been able to send a marketing campaign!”

Although the size of the support team was not appropriate to support all users after the go-live in all case studies, support staff was reactive and competent in all three implementations, and without it, many users would probably have given up, or gone back to alternative systems.

“When I (TMA) am stuck, I call the support team whether it is an issue about data quality, about data definition or about reporting. They are used to receiving my calls ... and I am not the only one calling them. They are competent and answer very fast, except when we need new reports as it seems to take some time to develop new reports ... It is good to have them. I sometimes feel that Siebel is a black box, difficult to use. Without the support team, I would have been even more frustrated.”

Assessing the size of the post-adoption support team was definitively a key issue negatively impacting usage, and was not properly managed in any of the

three cases, although its impact on usage was almost negligible for the third site.

Fourthly, *“putting the cart before the horse”* - as the head of marketing put it - was the overarching cause of bad project management for the second case study. Seeman and O’Hara (2006) list the benefits of implementing CRM in a college setting: a student-centric focus, improved customer data and process management, increased student loyalty, retention and satisfaction with the college’s programs and services. The only declared objectives of the business sponsor were sales and marketing process standardization and data centralization. He thought that, once installed in all departments, the tool would force users to collaborate and hopefully design a common CRM strategy. Obviously that could not and did not work. Managers expected a more strategic and ambitious CRM vision, e.g. to improve the management of the student life cycle (Nair, Chan and Fang, 2007) or to increase student satisfaction. They were disappointed by the ‘back-office’ orientation of the initiative, and were often left with minimum guidance about the CRM business objectives. However, some departments (e.g. recruitment and admissions) were headed by a manager who had some previous experience with CRM strategy and system: these managers elaborated a CRM plan for their own departments, and adapted (with the help of the support team) the CRM system to meet their departmental processes and objectives. Super users were appointed in those departments and they made a meaningful difference by involving/convincing/supporting the rest of the team, and communicating with the support team. Unfortunately, other managers showed less CRM maturity or enthusiasm and gave up very rapidly, leaving their staff alone. Usage was low within those departments (i.e. fund raising and research).

However, three positive aspects emerged from the project management side. The first was that the tool and external partner selection process was robust and, as most users agree, the most suitable tool for the company was selected for the second and third implementation cases (for the first case study, the tool was imposed by HQ). The second was related to the project management team’s CRM business analysis skills, rated as very good to excellent by users and their managers for all projects. The third was the introduction of agile

project management techniques such as SCRUM, which contributed to an efficient roll-out of the tool in all three cases.

### **3- Data Quality**

Data quality negatively impacted usage in all three cases.

In case study one, data quality and coverage was an issue at the very beginning (e.g. data inconsistent with legacy systems, business units not covered by Siebel data sets, lack of timelessness of data updates), and remained (to a lesser extent) a problem after 19 months of operation. This issue did not stop staff from using the TMS, but some of their managers did not use the TMS because of its lack of coverage (e.g. no sales data in Siebel). Most of the time, managers resorted to alternative IS to obtain the data they wanted. When asked about data quality the local project manager bluntly stated:

“This is now much better (after 19 months), but we need to spend a lot of time explaining the data model and the data definitions to new employees. It is not self-explanatory ... data updates are less frequent than with Wizz (legacy system) and even the data model and the data fields are different. It took a while to get accustomed to the new TMS. Now it is better but we still face a big problem. Above trade marketing managers, almost nobody uses Siebel as they want to have both sales and marketing data and Siebel only provides marketing data. We are regularly asked to provide extracts of Siebel so that top managers combine them with sales data from Wizz to get an overall picture. Our TMS still lacks credibility ...”

Bad data quality was ranked by users as the third most influential factor in the second case study. It was due to the bad quality of the data migrated from the departmental customer files to the central CRM database. The project team did not properly evaluate the quality of the data maintained by each department in their MS Excel or MS Access files. It forgot to perform basic checks on customer data - such as missing fields, duplicate records, and erroneous formats - before loading the departmental data into the newly created central CRM database. Users ended up with a very bad customer database, and their first reaction was to return to their excel files and MS Outlook folders. The following comment from a user in the research department illustrates the poor quality of the central database:

“I now see seven Mr. Jones (fictional name) in salesforce ... Yes, seven ... Can you believe this? I used to have only one Mr. Jones in my MS Excel spreadsheet ... I guess that other departments had the same Mr. Jones in their

files. Now that everything has been merged into one database, it is crap ... I do not know which information is correct and up-to-date.”

Data migration was also pointed out as negatively impacting usage in the third case study. Users lost some key data (e.g. a flag indicating that a contact was not a client but a key reference such as a lawyer or a private banker), or could not figure out why some data had been migrated into other fields or screens in the new CRM system, making the new application less user-friendly.

#### **4- Organisational silos**

Organisational silos negatively influenced CRM system usage in the second and third case studies. This factor is related to the lack of collaboration and customer data exchanges among the company's departments (Pullig, Maxham and Hair, 2002). A CRM initiative can be successful only if it is a companywide initiative (Chen and Popovich, 2003; Desisto, 2010).

This was typically the case in the educational institution, as top management did not get involved in the initiative and did not motivate or force the main departments to work together, resulting in isolated and disconnected CRM islands, far away from the 360-degree view of the customer advocated in the CRM literature. The profile of the business sponsor (IT director) was not the correct one to drive a business initiative (lack of CRM credibility). Furthermore, this organisation was characterized by a lack of companywide CRM strategy defined by the executive team (e.g. no key account management, no objectives for customer segmentation, no willingness to personalized services), a very weak culture of measurement, control and sanction, and, above all, no willingness (or capacity) to take drastic action when the alarm rings. The following statement summarizes this laissez-faire management approach:

“I (marketing director) own my data, he (consulting manager) owns his data, she (research manager) owns her data but nobody owns all our company's data. There are little kingdoms everywhere ... Believe me or not I did not know until recently that one of my key accounts was also a key provider to our Food & Beverage operations. How did I discover this? By talking to a student ... I should have learnt this from our CRM system but nobody enters real useful information. Nobody wants to share data, and I do not see our president twisting some arms to promote collaboration ...”

The third case study also saw individual silos (sales representatives) acting independently and retaining customer information for their own benefits.

Sharing information was not part of the sales team's culture. Faced with a tough economic environment and diminishing bonuses, sales representatives did not want to share their leads with the rest of the group. They recorded all new opportunities outside of the CRM system, therefore making the new application useless for the sales team as a whole. The lack of control and pressure by their sales director reinforced this selfish behaviour.

## **5- Individual Commitment**

Individual commitment is another main factor influencing usage over the long-term. It is a critical factor to achieve business benefits, especially when combined with improved CRM analytical and account management capabilities. The following statement illustrates the motivation of a TMA to use the new CRM application to reach his current job and progress in his career.

"I (TMA) believe that Siebel was introduced in order to improve our work and benefit our company. I believe it is a great tool to improve our productivity and give us more time for added value activities such as account management. I want to do more account management and spend less time on data entry ... I want to progress in my job and do some more interesting stuff. Siebel might be the tool to reach my objectives. This is why I invest more time in the tool than my colleagues ... I was involved in the initial project by the project team and this is where I realized that Siebel could be beneficial to me."

Not surprisingly, such users did progress more rapidly on the post-adoption usage process. The CRM coordinator (case three) is another example of a user showing a high level of motivation, and progressing rapidly towards the benefits realization phase. His mid-term objective was to increase his market value by acquiring some specific skills in a new and successful software application (Salesforce.com).

Two opposite examples are the fund raising director (case two) and the sales representatives (case three) who did not see any personal benefits in using the new CRM system, and kept its use at a minimum level (respectively, no use and adaptation phase).

## **6- Realized Benefits**

Level of usage was directly linked to the benefits achieved by users. Two opposite comments from the first case study illustrate this fact, one from a TMA and the other one from a LCA.

“My business (trade marketing) is complex and I (TMA) have almost 100 customers. Without Siebel it is impossible to do my job. My productivity would go down by 40-50%. I need such a tool. It saves me a lot of time.”

“This tool does not help me (LCA) achieve my objectives. I have only 16 customers. I could achieve my objectives without it although I now get more and better data from Siebel. And, they are accessible from one single place, which is good .... But I just extract customer information from Siebel when I am onsite. It impresses my customers.”

Tool functionalities were ranked high in the factors, positively influencing usage in all case studies. Because of the thorough selection of the tool and the partner, interviewees raised very few complaints about the tool. Departments using the tool were satisfied with the breadth and the depth of its functionalities, its flexibility to account for new requirements and the stability of the SaaS (Software as a service) platform (cases two and three). Tools are easy to blame when things do not go well, but very few bugs appeared and those that did usually were corrected rapidly, leading to an overall positive perception of the CRM tool. The only weakness highlighted by users across all cases was the lack of reporting capabilities when the CRM system was initially deployed.

## **7- Communication of Benefits**

Communication by top management about the benefits achieved through the CRM system was also a key factor in motivating people to use the system and achieve benefits. Unfortunately, users rated this type of communication unsatisfactory in all three implementation sites. The following comment (case one) shows that users expected to get some regular management feedback about the TMS contribution to the company’s objectives before investing more in the tool:

“I (TMA) was not explained the reasons for the Siebel introduction. All I did during the training was to learn how to enter data in Siebel ... not very motivating. I do not remember the initial TMS objectives for our company and I have never received any feedback about the actual benefits of the TMS initiative. I think I deserve it as it is painful to enter those data without knowing why I do all this admin work. After almost two years, I must admit that I now enter fewer data in Siebel”.

The situation was more contrasted in the second case study. Internal communication by management differed between the pre and post go-live periods. Communication before the CRM deployment was appropriately handled. For example, monthly staff meetings highlighted the initiative’s

objectives and progress. Although those meetings were mostly a formal presentation by the business sponsor and the project manager, they still allowed staff to ask questions and debate about the CRM project. Unfortunately, after CRM deployment, those quarterly meetings were abandoned. The business sponsor began focusing on an upcoming ERP system implementation, and believed that the CRM project was on the right track. Here is what he stated six weeks after the introduction of Salesforce.com.

“The more you use the system, the more you see benefits. Let us now leave it to users. The tool is stable, functionalities are there ... There are still data quality issues but I guess they will be solved over time. I trust my project manager to solve this remaining issue. Now I have the ERP on my plate ...”

Without regular status meetings and published project indicators (no KPIs were calculated and published on the company intranet), users were left on their own in their respective departments, and did not see the improvements that the CRM tool brought to the company’s day-to-day activities.

The population studied in the three case studies (sales and marketing) was very much in demand of feedback about the contribution of the newly deployed CRM system on the achievement of their department and company objectives. Most sales users felt that the introduction of this new tool added more administrative work to their daily tasks, and was an attempt by management to control their work. They expected to see a significant contribution from this tool before fully adopting it, a typical catch-twenty-two situation. The researcher suspected that some sales people used it as an excuse to slow down the implementation of the CRM system.

#### ***4.6.2. Theme 2: Post-Adoption Usage Phases***

The researcher will first describe and explain the phases and sub-phases found in the CRM system post-adoption usage process. He will then situate individual users on this process, as they were at the end of each case study. Finally, he will analyze their temporal evolution.

#### **The three phases and seven sub-phases of the post-adoption CRM system usage process**

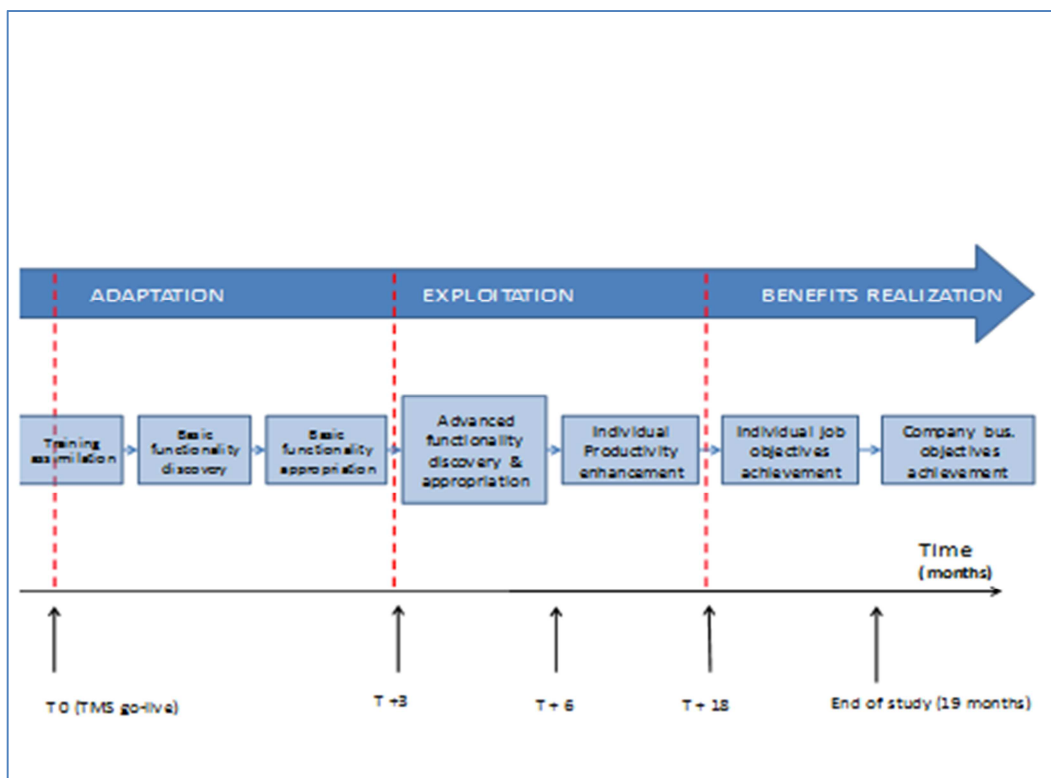


The researcher found 25 open codes characterizing the post-adoption usage phases in the first case study. Each open code represents a step or a milestone in the post-adoption usage process. The researchers grouped these codes around three emerging and distinct phases, and labeled each phase as follows: adaptation, exploitation and benefits realization. Excerpts from interview transcripts illustrate each phase; they are followed by the list of the open codes attached to each phase.

- Adaptation *“I am still familiarizing with Siebel (TMS) usage and functionalities, but I am not quite proficient enough to fully exploit Siebel to better accomplish my job”*: The following open codes are linked to this phase: initial rejection or resistance, discovery of CRM system’s functionalities, assimilation of user training, replication of training exercises, familiarization with the tool (trial and error), initial trial before giving up, initial productivity loss, frustration and complaint, regained confidence (after trial and error period), extensive support requested, tool is useless for my job (no personal benefits) (11 open codes).
- Exploitation *“I know Siebel quite well and I am getting more productive with Siebel when accomplishing my daily tasks (i.e. better planning, more customer visits, more information and analysis of customers)”*: The following open codes are linked to this phase: the end of the tunnel, personal satisfaction (to use a sophisticated tool), tool as a companion in every day’s tasks, productivity back to previous level, improved productivity (compared to previous tool), mastery of the tool, discovery of more advanced functionalities, use of more advanced functionalities, improved customer planning and analysis skills (9 open codes)
- Benefits realization *“Siebel is providing me the benefits to reach my job objectives better, it is helping me reach my targets and improve my overall performance and that of my team”*: The following open codes are linked to this phase: awareness of tool potential on individual job objectives, training needed (business CRM training), job achievement objective, impact on team performance, impact on company performance (5 open codes)

The researcher proceeded in a similar way to highlight the different sub-phases within the main phases (Figure 4). He then showed the post-adoption usage

(sub)-phases to users for feedback. Only minor changes were made. This usage process was later confirmed by the local and HQ TMS project managers during the debriefing sessions held at the end of the study. At this stage, the researcher was aware of the limitations of the initial proposed TMS usage phases. Firstly, he based them on a single case study, and secondly, he mainly “reconstructed” this process based on interviews and TMS data logs. This process proposal definitively needed to be reviewed and updated with the next two cases.



**Figure 4. TMS Usage Phases and Sub-Phases (Case 1)**

Figure 5 summarizes the researcher’s thoughts on the adaptation phase. This memo provides additional information about this phase and its sub-phases. Similar memos were written for the exploitation and benefits realization phases and sub-phases.

The adaptation phase is marked with the discovery of the tool. Statistics about functionality usage and frequency of usage show how the tool is used in this initial phase. This is a phase characterized by lots of process and technological adaptations (Tyre and Orlikowski, 1994). Collected data are from the TMS system log: frequency of use (number of accesses per user per month) and functionalities used (number of Siebel Analytics logged users, number of dashboards used, number of activity types used). Those metrics show the breadth of use for different activities. In the exploitation phase we will examine the depth of use, especially when looking at task accomplishments. As far as the adaptation phase is concerned, three sub-phases appear. The first one is the “training assimilation” sub-phase. This period starts just after the initial training (a couple of weeks before ‘go-live’) but still continues one or two weeks after the launch of the TMS. It is characterized by an initial emotional phase, sometimes leading to perplexity, sometimes to an initial rejection (“it is too complicated, I will never be able to use the tool”), but rarely to instant adoption. People wanted to see tangible benefits by using the TMS before having an opinion. This is followed by a short period of testing (trial and error) back at the office or in the field. The second sub-phase of the adaptation phase is the “basic functionality discovery” sub-phase. It is a period of initial discovery and usage where users try to replicate what they were taught during the training (“applying the lessons learned in the classroom”), which is a bit like practical exercises. The third and last sub-phase is the “basic functionality appropriation” sub-phase where users are actually using the basic data entry and data query functionalities in Siebel in order to perform their daily activities (e.g. field visits). This is where users get accustomed to the TMS functionalities that are useful for their job.

**Figure 5. Memo: The Adaptation Phase (Case 1)**

The researcher initially compared those initial findings with the literature on the IS implementation and usage process. He found no major discrepancies, although he probably provided a more detailed view on post-adoption sub-phases. To complement the open codes, the researcher also gathered some users’ remarks characterizing the three post-adoption usage phases. Each of the following excerpts (from case study one) is related to a phase (respectively, adaptation, exploitation and benefits realization):

“I (TMA) had like a “physical reaction” when I was introduced to Siebel the first time. Too complex, not user friendly ... I was lost and initially rejected this tool. I could not see any benefits for me, only problems. Then, when I was back in the office I tried to do all the exercises again and got a bit more familiar with Siebel. At least I could enter and retrieve basic data. I guess it is like that for any new system. I am not now an expert but I can do my daily tasks within Siebel.”

“After 18 months of suffering ... I (trade marketing manager) have fewer questions to the helpdesk, and those questions are now more data than functionality related. I now get around fairly well in this tool. I am a bit more productive thanks to reports and dashboards ... Does it help my company? I have no clue. It just saves me some time. ”

“Now that reporting has been improved and that I (merchandising manager) have almost all my data in one system I have totally forgotten the old DECO system. Siebel provides a ready-to-use ROI on our points of sales, automatic KPIs calculation. It saves me time but more importantly brings added value for market and customer analysis. This is the real stuff. For my position Siebel really brought business value by improving our segmentation capabilities and product offering. It has also helped us reduce local inventory”.

All of the 25 open codes found in the first case study appeared during the second research. This result confirms that the phases and sub-phases mapped during the initial case study were rather generic and therefore could apply to the second CRM site. Overall, the definitions of the three phases and seven sub-phases still held for the second case. The one and only major difference was the increased user dispersion on the post-adoption usage map, which will be illustrated in the next section.

Out of the 25 factors gathered in the first two case studies, the researcher found in the third case study all items related to the adaptation phase (seven factors). Sixteen factors (related to the exploitation and individual benefits realization phases) were found only for the CRM coordinator, as sales representatives did not go beyond the adaptation phase. Not surprisingly, two factors (team and company performance) could not be highlighted in this third study.

### **The situation of individual users on the post-adoption CRM system usage process at the end of each research project**

An analysis was performed at the level of the individual users to situate them on the post-adoption usage process at the end of each case study.

Tables 10, 11 and 12 illustrate where individual CRM users situate within the post-adoption usage phases and sub-phases and which set of CRM functionalities they use. CRM functionalities are categorized into five groups:

1. Basic customer data entry and query (e.g. customer profile information such as first and last name, gender, or email)
2. Advanced data entry (e.g. customer preferences, outlet inventory levels, onsite merchandising materials, sales and marketing activity tracking)
3. Reports and dashboards (e.g. customer and market analysis, KPIs)

4. Planning of activities (e.g. outlet visits, route planning, sales activity scheduling, marketing campaigns) and objective setting (e.g. for marketing campaigns and for field staff)
5. Segmentation (e.g. customer and field outlet segmentation)

User	Training assimilation	Basic funct. discovery	Basic funct. Appropriation	Advanced funct. discovery & appropriation	Indiv. productivity enhancement	Indiv. objective achievement	Company bus. objective achievement	Functionalities used
	Phase 1	Phase 1	Phase 1	Phase 2	Phase 2	Phase 3	Phase 3	
TMA1								1+2+3 (a)
TMA2								1+2+3 (a)
TMM								1+2+3
LCA1								1 + 2 (b)
LCA2								1 + 2 (b)
Merchandising manager								2+3
Trade segmentation manager								3+5
Op. planner								3 +4

**Table 10. Individual User Status (Case 1)**

(a) Only 2 reports used - no dashboard used.

(b) Functionality 2: occasionally

Three usage types came out from the analysis of the above table: LCAs, TMAs/TMM, and operational planner/merchandising manager/trade segmentation manager.

Not surprisingly, leisure channel associates (LCA1 and LCA2) barely use Siebel; they have reached the end of phase 1 (adaptation). They only enter the customer information required by management. They see no personal benefit, and their managers do not push for it.

TMAs (TMA1 and TMA2) and TMM must use Siebel to do their jobs, and are now more productive with Siebel. They use most of the available TMS

functionalities (basic and advanced data entry), but have limited access to reports and dashboards (only two reports are readily accessible to TMAs due to confidentiality and performance reasons). Only one TMA is really reaping the benefits of Siebel in terms of job achievements (i.e. increased sales for his outlets, more outlet visit per day). It must be noted that this person was part of the initial project team.

The operational planner, the merchandising manager, and the trade segmentation manager greatly benefit from Siebel as this new application helps them perform their job better and achieve their objectives through more advanced planning, advertising, and segmentation capabilities. These users are currently benefiting from the data centralization in Siebel and the roll-out of analytical tools. The trade segmentation manager is still a bit behind because he just recently joined the team, but he might reach the benefits realization phase soon. For these three people, Siebel usage is now part of their daily work. Because of the phasing out of the legacy tool, they have no choice but to use Siebel. All of them had high expectations about the TMS and so far this new tool seems to have fulfilled their needs.

Table 11 shows the usage phases the six user departments of the second case study were at after 13 months. The researcher did not find differences between users of a same department, and therefore did the analysis at department level.

User	No use	Training assimilation	Basic funct. Discovery	Basic funct. Appropriation	Advanced funct. discovery & appropriation	Indiv. productivity enhancement	Indiv. objective achievement	Company bus. objective achievement	Functionalities used
	-	Phase 1	Phase 1	Phase 1	Phase 2	Phase 2	Phase 3	Phase 3	
Admission & recruitment									1,2,3,4,5
Internship									1,2,3
Fund Raising									-
Mktg and Comms									1,2,5
Research									-
Nurse									1,2,3

**Table 11. Individual User Status (Case 2)**

Two departments (fund raising and research) did not use the tool. One department (marketing and communications) was at the end of phase 1, one (internship) was at the beginning of phase 2, the one-staff service (nurse) was at the end of phase 2, only the recruitment and admissions team showed some job objectives achievements (phase 3), as pointed out by its manager.

“The CRM tool helps us (the recruitment and admissions department) to do a much better evaluation of prospective students. We now have all data centralized into our system and can run all types of reports on the skills and test scores of each prospect. I am convinced that we now recruit candidates with better profiles. This is one of our key objectives! We also are better off regarding the mix of our students. Reports help us have a real-time view of admitted students so that we know for example which profiles we miss.”

The explanation for the dispersion along the usage process in the second case study can be explained by the fact that the CRM system implementation was left at the discretion of each department manager. Tool usefulness, generated benefits and CRM experience/maturity were driving each manager’s level of involvement. Not surprisingly, the manager who benefited the most from the CRM project was the CRM savvy director of recruitment and admissions, whose most important processes were now automated by Salesforce.com. Three other departments significantly gained from CRM implementation: the internship department (automation of job postings and marketing campaigns), the marketing/communications department (automation of segmentation and marketing campaigns) and the nursery (tracking and analysis of students’ visits). The difference in progression among those departments is mostly due to the involvement of the manager. All could have derived the same benefits as the recruitment and admissions team. Unfortunately, two managers clearly lacked the motivation and CRM experience (marketing and Communications, internship) to achieve phase 3. As far as the nursery is concerned, the CRM tool was not aimed at achieving the nurses’ job objectives, but just at improving their individual productivity. As in the first case, no companywide benefits were mentioned after 13 months. Although the business sponsor asserted that the CRM initiative has led to process efficiency and cost reduction, no KPIs were calculated, which would have permitted the researcher to assess the initiative’s impact on the whole organisation.

Two user types clearly appeared during the third case study (Table 13). On one side, sales representatives barely used the CRM tool, reached the end of the

adaptation phase, but saw no personal benefits to go beyond; on the other side, the CRM coordinator considered the introduction of this CRM tool as an opportunity to learn a new technology and decided to invest a lot of time in mastering the tool in order to reach his job objectives, and add a valuable new skill on his résumé.

User	No use	Training assimilation	Basic funct. Discovery	Basic funct. Appropriation	Advanced funct. discovery & appropriation	Indiv. productivity enhancement	Indiv. objective achievement	Company bus. objective achievement	Functionalities used
	-	Phase 1	Phase 1	Phase 1	Phase 2	Phase 2	Phase 3	Phase 3	
Sales Representatives									1,2
CRM coordinator									1,2,3,4,5

**Table 12. Individual User status (Case 3)**

### **The evolution of individual users on the post-adoption CRM system usage process**

The snapshots of Tables 10, 11 and 12 do not show the progression of each individual user during the research period. The researcher will now look at usage evolution between the interview rounds.

Table 13 shows the usage evolution for each department during the seven rounds of interviews (R1-7) of the second case study. While the recruitment and admissions team experienced a fairly linear progression over time, other departments showed different patterns. For example, the fund raising and research departments progressed during the first three months to phase 1 “basic functionality appropriation“, but because of a lack of management’s involvement due to a lack of realized benefits, staff members gradually regressed to a point where the system was no longer used (at least when the researcher ended the project). The following comment illustrates the diminishing level of enthusiasm of the fund raising assistant:

“I should use the tool daily to update our contact profiles and record our fund raising activities. After 6 months I used the tool once a month. I felt guilty, so I



hired a student to clean my backlog. Good. But I also realized that nobody including my boss saw any benefits from this action. So ..... ? I went back to my good old MS Outlook and MS Excel. It is enough for me. Sharing information? Nobody seems to care ... I thought it was the initial objective of the CRM.”

User	No use	Training assimilation	Basic funct. discovery	Basic funct. Appropriation	Advanced funct. discovery & appropriation	Indiv. productivity enhancement	Indiv. objective achievement	Company bus. objective achievement
	-	Phase 1	Phase 1	Phase 1	Phase 2	Phase 2	Phase 3	Phase 3
Admission & recruitment			R1	R2	R3	R4	R5-7	
Internship			R1	R2	R3-7			
Fund Raising	R4-7	R1	R2	R3				
Mktg and Comms		R1	R2	R3-7				
Research	R4-7	R1	R2	R3				
Nurse		R1	R2	R3	R4-7			

**Table 13. Individual User Progression (Case 2)**

The researcher could not build a similar individual user progression table for the initial case study as he conducted only two interview rounds. However, some qualitative remarks can be made based on discussions with users and the local project manager. The initial case study seemed to show a fairly linear progression of users along the different phases and sub-phases of the usage process. Of course, some users (and departments) progressed at a faster pace than others, while certain user categories such as the LCAs stopped at early phases (for LCAs, it was at phase 1 – basic functionality discovery and appropriation). However, after reaching a phase or a sub-phase, no user returned to previous phases. Two main reasons can explain this phenomenon. Firstly, direct supervisors and middle management put pressure on users through regular controls about tool usage, data entry and data quality. Secondly, the core business processes of most users were built into the TMS, and made TMS usage almost mandatory to fulfill job expectations. “Regressing” in terms of usage would have meant a lower performance for users. The second case study confirmed this linear progression pattern for three departments: admissions and recruitment, internship and marketing. The researcher noticed a non-linear pattern for the fund raising and research departments. Initially, the

users in those two departments “successfully” passed the initial phases and reached the “basic functionality appropriation” sub-phase of phase 1. However, faced with daunting data quality problems, and a lack of management involvement (no time was allocated to staff for learning the tool and solving data quality problems) and project team support, those two departments slowly regressed to a point where the CRM system was not used at all. They returned to their Excel spreadsheets and Outlook folders to manage their sales and marketing activities. Unfortunately, the project team and the business sponsor did not get them back on track by helping them resolve some of their issues, but let them drift away. This is a typical illustration of the current status of this organisation characterized by internal silos, a laissez-faire approach, and a weak project management culture.

The researcher drew two conclusions from the above findings. Firstly, individual/departmental usage and not companywide usage is key to developing an understanding of why and how users progress through the post-adoption usage phases. Secondly, tracking usage within a longitudinal framework reveals the non-linearity of the usage process. Users move up (and down) along this process. Most IT implementation models referenced in the literature are presented as a suite of logical and sequential steps where the project and, therefore, users are (should be) optimally moving from initiation to infusion (Kwon and Zmud, 1987; Cooper and Zmud, 1990). The idea that some users could go back to “square one” (no usage) is only occasionally mentioned (Markus and Tanis, 2000; Speier and Venkatesh, 2002). The lack of management control and companywide CRM policy in the educational institution (case two) set a fertile ground for this type of non-linear usage behaviour.

Table 14 below shows, for the third case study, that sales reps progression prematurely stopped after users realized the lack of usefulness of the newly deployed tool for them, whereas the CRM coordinator progressed through all phases. Tool usefulness and personal motivation were the key drivers explaining for the usage differences.

User	No use	Training assimilation	Basic funct. discovery	Basic funct. Appropriation	Advanced funct. discovery & appropriation	Indiv. productivity enhancement	Indiv. objective achievement	Company bus. objective achievement
	-	Phase 1	Phase 1	Phase 1	Phase 2	Phase 2	Phase 3	Phase 3
Sales representatives			R1	R2-4				
CRM coordinator			R1	R2	R3		R4	

**Table 14. Individual User Progression (Case 3)**

### **4.6.3. Theme 3: User Behaviours**

#### **The six user types**

The second case study provided a wealth of information about user types and behaviours. The researcher will first describe and explain them, and then see if they can cover the types found in the first and third case studies.

The researcher found 36 open in the second case study, and grouped them to form the following six user types: the ‘good citizen’ user, the “happy” user, the “frustrated” user, the “looking at the train passing by” user, the “selfish and silent” user, and the “cannot cope with this tool” user (Table 15). Some open codes were listed under several user types. The presence of departmental silos implementing the CRM project at their own pace and for their own personal benefits has led to some significant heterogeneity in terms of usage and user types.

the 'good citizen' user	the "happy" user	the "frustrated" user	the "looking at the train passing by" user	the "selfish and silent" user	the "cannot cope with this tool" user
Committed to his / her company.	User needs met by the tool.	Frustration (leading to silent resistance).	No personal need for a CRM tool.	Opportunistic .	Frustration (leading to tool rejection)
No major personal benefits achieved through the CRM tool.	Personal benefits achieved (i.e. increased productivity).	Big brother syndrome.	Big brother syndrome.	Free rider.	Big brother syndrome.
Make sure that he/she enters data (contacts, activities) in Salesforce.com but minimum effort.	Regular contributor to the CRM database (i.e. new contacts entered).	Initial excitement.	Wait and see a CRM strategy before making a decision.	"Silo" mentality.	Free rider.
Ask regularly for support.	Promotion of the tool in his / her department).	No realized benefits.	Status quo advocate.	Never ask for support.	Initial use of the tool.
Looking good towards his / her boss.	Early adopter, enthusiastic.	No support from manager.	Decide on his own to use it or not (no pressure from manager).	Use basic functionalities (mostly data entry and reports).	Experience issues (data quality, lack of functionality).
Use of basic functionalities only (data entry and query).	Use of advanced functionalities (segmentation and marketing campaign).	Disappointed by a lack of CRM strategy.	Risk adverse.	Mixed usage of CRM and previous tools (MS Excel and MS Outlook).	Decide on his own to use it or not (no pressure from manager).
Mixed usage of CRM and previous tools (MS Excel and MS Outlook).	Looking good towards his / her boss.	Must use the tool (pressure from manager)	Still use his / her previous tools (i.e. MS Excel, MS Outlook).	Decide on his own to use it or not (no pressure from manager).	Go back to his / her previous tools (i.e. MS Excel, MS Outlook).
		Open criticisms about the tool and the project.	Disappointed by a lack of CRM strategy.		Open criticisms about the tool and the project.

**Table 15. User Types (Case 2)**

The six user types are summarized below.

**The "good citizen" user** was initially not thrilled by the tool as he could not clearly see any major benefits either for him or for his company. But he wanted to be a good corporate citizen and decided to give it a try in order to contribute to the company's project. He continuously used the tool and performed some sporadic data entry and cleaning during the whole research period. He regularly asked for support and training in order to maintain or increase his skills on the basic tool functionalities.

“I (research assistant) use Salesforce.com to send my Christmas cards and my event invitations. I still need Nanda from Communications to do it and it still takes me more time than with the previous emailing tool ... But the project manager told me that all emailings must now be sent from Salesforce.com in order to record all external communications within the CRM ...”

“I (fund raising assistant) used to go to CRM weekly meetings to meet other users and learn about functionalities but management has asked Nanda to stop those meetings ... I do not know why but it is demotivating. I think they are reducing the resources allocated to this project. Anyway ... I will continue to do my data entry and cleaning every month until I am told to do something else ...”

**The “happy” user** benefited from the newly-introduced functionalities such as segmentation and emailing capabilities. They did really help him in his daily activities and job achievement. As the CRM tool supported most of his tasks, he continuously contributed to the CRM initiative by entering his contacts and activities and participating in the development and use of more advanced functionalities.

“We (admissions) have now all dashboards available in the new CRM reporting tool. We have lots of stats and analysis and a report compiles all results of the admission process into one single document. Saves us a lot of time ... The campaign management tool is a good thing too, we use it for forums and info session and open days. Very good. We now must work on the new event management tool for the selection days. It is currently on hold as we are waiting for the business requirements of other departments, but our specs are ready.”

**The “frustrated” user** sometimes showed an initial excitement after attending staff presentations and training sessions, but very soon got frustrated due to the lack of a clear CRM strategy, low support from his boss and unrealized productivity improvement. He had to use Salesforce.com to perform his job but constantly formulated some criticism about this tool to his colleagues and manager.

“I (internship officer) use Salesforce.com in most of my activities: publishing of jobs, printing of certificates, storing of contracts, surveys, etc. I like IT and I like learning new tools. This is why I was part of the project team. But we still have lots of issues and nobody seems to care. Every time the support team says: “don’t worry, we will take care of it”. But they don’t. They look after admissions and I still have problems with data quality, bugs in reports and I do not see a plan for the future ... It is all short-term. Managers do not do their job. It is deteriorating week after week.”

**The “looking at the train passing by” user** did not have or see a real need for this CRM tool. This user type also raised some data privacy issues as he believed his customer data were confidential and could not be shared with

people from other departments. Usually he had the feeling that tool was imposed by the IT department without any consultation with the user community. He was expecting to see an articulated CRM strategy showing proven benefits for him before deciding to use it or not. He did not have a supervisor pushing for the tool.

“My staff were trained on the tool: good for them ... but nobody has yet convinced me (marketing and communications director) about our global CRM philosophy and principles and their benefits for us. The business sponsor put the cart before the horse, the tool before the strategy. We do not even have a common definition of loyalty and sales cycle here ... The laissez-faire approach of our management team does not work. We need objectives, we need control, we need a common definition of what CRM is for our school. Above all we need a real willingness of managers to share data. Until then I keep my business cards in my drawer ... No time to waste with the tool.”

**The “selfish and silent” user** got what he needed from the tool (i.e. functionality such as emailing or improved search for contact data). He usually did not enter a lot of data into the system but extracted customer information entered by other departments in order to support his marketing or consulting activities. He represented a typical silo within the school.

“I (marketing manager) use Salesforce.com to send emails. I used to work in the web team and I am fairly comfortable with systems. I attended the initial training session and asked a couple of questions to the support team to learn more about the emailing functionality. Now I am independent. ... I got what I needed. “

**The “cannot cope with this tool” user** initially used the tool and most probably did go through the “good citizen” and “frustrated” phases. There was no control from his/her manager. He stopped using the tool after facing numerous difficulties (data quality, missing functionalities, and lack of information sharing) and went back to his previous tools (MS Excel, MS Outlook) to perform his job. He did not voice his opinion too much as he seemed to have gone beyond the frustration phase, in fact he seemed indifferent.

“Two years ago we already introduced a CRM system and it did not work. Now we have a new tool. I have spent a lot of time entering my contacts, my meetings, and documents in Salesforce.com. I am not a fan of IT systems but I did it with the help of my assistant. And so what? We still work in silos; there is no control on what we input in Salesforce.com. I stopped entering information in Salesforce.com and nobody has ever told me anything. Nobody cares I guess

... I played the good guy but now it is over. I have all needed information in my MS outlook. That's enough for me. I do not need such a complex tool anyway."

The usage status (user/non-user) and the usage phase of the six user types are shown in Table 16.

	<b>Type</b>	<b>Usage Status</b>	<b>Usage Phase</b>
1	The "good citizen" user	User	Adaptation
2	The "happy" user	User	Benefits Realization
3	The "frustrated" user	User	Exploitation
4	The "looking at the train passing by" user	Non user	No use
5	The "selfish and silent" user	User	Adaptation/ Exploitation
6	The "cannot cope with this tool" user	Non user	No use

**Table 16. User Types Status (Case 2)**

How do these six types fit with the findings of case studies one and three?

There was a great diversity of user behaviours within the marketing team of the first case study. However, the researcher could clearly distinguish three types of behaviours corresponding to the three teams interviewed: trade marketing, leisure channel and operation and planning. Behaviours were relatively homogeneous within each team. Even though the number of interviewees was fairly small, QSR NVIVO provides a useful functionality allowing the researcher to build user types (through tags attached to individual interviewees such as age, gender, business unit), and then perform the open coding analysis based on each user type. This is how the researcher confirmed that some behaviours were almost exclusively linked to certain teams:

- Trade marketing = happy/good citizen user. Related open codes are as follows: risk adverse, looking good towards customers, looking for potential future benefits
- Leisure channel = frustrated/selfish and silent user. Related open codes are as follows: status quo advocate, frustration (rejection), frustration (resistance), free rider, big brother syndrome

- Operation and planning = happy user. Related open codes are as follows: early adopter, commitment to the company, opportunistic (short-term), looking for potential future benefits.

Below are interviewee comments that seem to characterize each user population. The role of the department manager, the user's perceived and realized benefits from the TMS, and the involvement of the user in the early phases of the TMS project (e.g. gathering of business requirements, testing) were three main factors explaining such distinctive behaviours. This finding is further explored in the axial and selective coding sections, but the importance of management and early user involvement in project definition and implementation is clear.

"I (operational planner) have only positive feedback about the Siebel implementation. Nowadays, one single application replaces a set of disparate applications (cubes, excel, contracts application, merchandising applications) which makes my life easier. It is also a good tool for the TMs (trade marketers) as it provides reporting capabilities. My role has become more important in the company as I am the one supporting the application and developing new reports and dashboards for all business units." (happy user)

"I (TMA) have faith in my company. I believe they chose Siebel for good reasons even though I am not aware of all generated benefits for my company overall. But I will use the tool and try to contribute to the success of my team." (good citizen/happy user)

"I (leisure channel associate) use the tool because my manager wants to report numbers but I do not need Siebel. I only enter the data my manager wants". (frustrated/selfish and silent user).

Obviously, types 4 ("looking at the train passing by") and 6 ("cannot cope with this tool") were not observed in the first case study, as TMS was mandatory and management was regularly checking usage. Type 5 ("selfish and silent") was evident for certain LCAs as they managed their own business with big clients without too much supervision. However, most of the user population could be classified under types 1 ("good citizen"), 2 ("happy"), and 3 ("frustrated").

The researcher did not find the diversity of user behaviours highlighted in the second case study for the small user population of case three. However, out of the six user behaviours previously found, two clearly matched our user types: "the happy user" corresponds to the behaviour of the CRM coordinator, while "the selfish and silent user" is typically the behaviour of sales representatives.



This third case study did not add any new insight but confirmed two behaviours already highlighted in previous research. Like in the second case study, the “happy user” reached the benefits realization phase, while the “selfish and silent users” showed very low level usage (adaptation phase), but this time did not give up as users did in the second case study.

#### **4.6.4. Theme 4: User Transition**

Factors enabling users to progress along the post adoption usage process are grouped into four categories: user training and support, manager involvement, change management, and realized benefits.

##### **User training and support**

The first enabler discovered is the training and support provided by the project team before and after the deployment of the CRM system. This enabler is extremely important to move from the initial sub-phase of the adaptation phase “training assimilation” to all subsequent sub-phases, up to the last sub-phase of the exploitation phase “individual productivity enhancement”. For example, it clearly explained the discrepancies found among the school’s departments. This second CRM project was more of a collection of loosely-related individual departmental initiatives than a structured and coherent companywide project. The researcher observed large discrepancies in the project team’s time and attention paid to individual departments. Because of a lack of resources, the project team concentrated its efforts on the key users of the CRM application, and no one (e.g. the business sponsor) tried to reallocate a portion of time to other departments. As the research department manager explains:

“We were not even invited to the initial training session. Apparently we are not important to them. We met the project manager a couple of months ago to discuss our requirements but since then we have not heard from him. And now I learn that training sessions were organised last week without us. It is only for marketing and admissions. We are just a satellite ...”

On the other hand, the admissions manager was satisfied with the support provided to her team:

“I have a direct contact with the project manager and the support team for any data or process related problems. When changes are implemented for my team it is easy to get hold of the technical partner. So far (after 6 months of usage) I have nothing to say about the support team. All our core processes are in Salesforce.com now. So they must react quickly. But I know I am a privileged client as some of my colleagues (fund raising and research) do complain that they are left aside ...”

### **Manager involvement**

The second enabler is the role and involvement of the manager (through support, training, pressure, and control). This plays an important role in the same phases and sub-phases and also, according to the feedback of trade marketers (case one), plays a key role in reaching the “individual productivity enhancement” sub-phase. We can clearly see that users who have reached this phase are part of teams whose manager actively contributes to the success of the TMS.

The involvement of the department manager was also a crucial element in selling the project and helping users move to exploitation and benefits realization phases during the second case study. The situation of the admissions and recruitment and fundraising departments after 13 months clearly illustrates the impact of the manager on CRM usage. The first department was led by a CRM knowledgeable manager who rapidly saw the benefits that Salesforce.com could provide to her team. These included increased productivity, and centralization of data for better reporting and decision-making process. Her team achieved a level of benefit that far exceeded that of the other departments, whereas the fundraising team stopped using the system.

“Our manager (admissions) organises weekly CRM meetings to discuss business as well as tool issues. It is difficult to hide ... we have no choice but to use the tool. It is now part of our daily activities. The support team developed a lot of reports for our manager: she is able to track our usage on a daily basis. Big brother is watching us ... but now we are more efficient and are able to handle more students ... when we face problems we escalate them to our manager and she contacts the support team ... She wants to control everything ...”

Although the CRM tool could have benefitted the fundraising team (e.g. emailing capabilities), its manager did not really care about the initiative. The fund raising assistant regretted this behaviour:

“My manager does not use Salesforce.com anymore. I still enter new contacts and update existing ones but I now do not track our fund raising activities in Salesforce.com. They are all in MS outlook. It is like double work for me, and as nobody checks it ...”

### **Change management**

The third enabler, to move users up to the “individual job objectives achievement” sub-phase, that consistently came up during all case studies (but to a lesser extent for case three) is the willingness of the company to communicate the business benefits of the TMS initiative. This willingness also helps to accompany users along this CRM journey by providing CRM business related training such as territory and account management or data analysis (case one). Most users wanted and needed to be accompanied throughout their CRM system usage journey. The researcher noticed that it took not only the individual motivation of the staff but also the willingness of the company to provide the environment conducive to it for users to reach the “individual job objectives’ achievement” sub-phase.

The researcher also identified this enabler in the second case study. However, almost all interviewees faced a more fundamental issue, in that they did not feel that the school was mature enough to succeed in its CRM project. “The cart before the horse” open code came back consistently in all managers’ interviews, as illustrated by the director of recruitment and admissions:

“... ideally we should have first a (CRM) strategy and then a (CRM) tool, but we do not have a culture of strategy and plans at the school. We implement all things incrementally, little by little and the CRM project is no exception. Instead of thinking about what CRM could mean for us, we threw a tool and tried to make use of it as best as we could. I think my team achieved something good, our recruitment, admission and enrolment activities are now well automated. But this is only back-office stuff, it is not a CRM strategy ... it should have been first designed by our top managers but they never got involved. This project has not improved the communication and sharing of information among our departments. We still have a silo mentality.”

Communication and business training should, of course, be integral parts of the CRM program, but they were undoubtedly a barrier to CRM system usage in the first two case studies. Most importantly, top managers should design, communicate and support the CRM business strategy in order to provide a coherent framework to all involved departments. This clearly did not occur at the school and resulted in uncoordinated, department specific sub-projects that did

not solve any of the major CRM issues, namely: lack of corporation, lack of information sharing, and lack of CRM strategy. Like in the initial case study, the user's willingness to progress in his/her job was also a factor favoring tool usage.

### Realized benefits

Although the lack of involvement and communication of the sales director was noticeable in the third case, it could not explain the sales representatives' low usage and slow progression. Most users were experienced sales representatives, and knew what it took to achieve their objectives, but quickly realized that CRM system use was not a decisive element in their success. Tool usefulness to achieve job objectives was undoubtedly a key factor explaining for the difference between the two user types of case three (sales team versus CRM coordinator). The researcher previously highlighted the same behaviour for LCAs (case one), and the fund raising department (case two). When sales users do not see any realized benefits either for themselves and/or for their department, they tend to slow down their usage, even in a mandatory use environment. This explains why positive comments initially collected (based on user expectations) were sometimes followed by mixed feelings from the same people (based on actual benefits brought by the CRM system).

For illustrative purpose, all open codes related to user transition enablers found for the first case study are listed in Table 17.

1	Ongoing support from the project team	4	Influence of colleagues	7	User's CRM (business) related skills	10	Perceived benefits for the individual user
2	Role of the manager – support and role model	5	Regular communication from top management about CRM objectives and achieved benefits	8	User's willingness to progress	11	Recognition in the company
3	Role of the manager - control	6	User's participation in initial phases of the CRM project	9	User's commitment to the company	12	User's initial perception of the tool

**Table 17. Open Codes: User Transition Enabling Factors (Case 1)**

#### **4.6.5. Theme 5: Evolution of Factors Influencing Usage**

Tables 18, 19 and 20 show for the three case studies the evolution of influencing factors between interview rounds. The researcher used the TOE framework to group factors, facilitate the discovery of trends, and compare case studies. The key findings follow. Firstly, technology related factors tend to disappear over time. Secondly, data quality issues seem to plague all three projects from day one if not correctly addressed during the implementation phase. Thirdly, user business skills and motivation are long-term essential elements of usage progression. Fourthly, change management (after system deployment) is weak as too few resources are usually allocated to post-adoption phases. Finally, getting rid of silos is usually not on the initial agenda of project teams, but silos are CRM killers, and should be addressed right at the beginning of the project.

A detailed analysis by case study is presented below.

##### **First Case Study**

After the two main interview rounds (June 2008 and November 2009) the researcher was able to compare the factors influencing usage at two different points in time, as shown in Table 18. The researcher greyed out a cell every time the corresponding factor was mentioned (and recorded in QSR NVIVO as an open code) by at least two users as positively or negatively influencing their CRM system usage. The researcher did not take into account factors highlighted by only one user in order to avoid potential individual bias and to strengthen the analysis via corroboration by additional users.

	Context	Factors	Present in June '08	Present in Nov '09
1	Environment	Competitive pressure		
2		Customer environment		
3	Organisation	Size and complexity of business		
4		Firm's commitment: CRM product champion		
5		Firm's commitment: communication of benefits		
6		Role of management (support, control, pressure)		
7		Recruiting (selecting the right profile)		
8		Compensation policies for the project team		
9		Project management skills (i.e. gathering of business requirements, tool testing)		
10		Support and training from the project team		
11		Work mode between HQ and local market (cooperation vs. conflict)		
12		Personal commitment		
13		Personal business acumen		
14	Technology	Tool usability		
15		Tool usefulness		
16		Tool compatibility with previous application		
17		Tool learnability		
18		Existence of workaround applications		
19		Existence of competing applications		
20		Improved data sets (coverage and quality) and functionalities (reporting)		
21		Tool flexibility (centrally controlled vs. local requirements)		

**Table 18. Contextual Factors Evolution (Case 1)**

Four findings regarding the evolution of factors influencing usage are described below.

Firstly, most technology related factors seem to disappear over time. Initial bugs were rapidly corrected by the central development team in Geneva. Usability issues disappeared after an initial trial and error period thanks to an efficient support team and the benefits of centralizing data within the same application outweighed some of the process changes introduced by the new TMS. The fact that the TMS was imposed by HQ was always on the mind of users, but did not influence their usage. However, the TMS was a worldwide application, and its lack of flexibility to accommodate local needs did slow down

adoption and usage. The existence of competing applications and data sources was definitely a barrier to management usage, as top management needed additional sales data for their monthly reporting. User IT literacy did not have any impact on usage, as stated by the local project manager:

“A non-IT person could have caught up after all the training and support we got. Long-term IT skills do not make such a big difference.” (Excerpt from an interview of the local project manager)

Secondly, in the medium- to long-term, personal motivation and business (CRM) skills make a real difference. The user quoted below is one of the very few who rapidly (after 3 to 4 months) achieved productivity increases, but complained about the lack of CRM training (i.e. account management) to fully exploit the potential of the Siebel tool.

“What makes a difference is your motivation. When I look at my colleagues most of them just want to do their job or cannot do any better. I want to progress and do not want to remain a trade marketing associate all my life. I do not need tool training; I need CRM, account management, business analysis training to better use the data and functionalities of this new TMS”

Thirdly, if not resolved rapidly, data quality issues will plague the project throughout its life. Even after 19 months of operation, many comments and reasons for not using Siebel concerned data coverage and quality. For example, users used to get daily data updates while data refresh was now only twice a week with the new TMS, this irritated most field people. Even worse, the project team could not explain data inconsistencies between the TMS and legacy systems.

Fourthly, each level of management – from the direct supervisor to the department director - plays a vital role during all post-adoption phases by motivating, controlling, supporting and/or communicating the achieved benefits to the user population. The project does not stop at deployment; the CRM system needs constant management attention throughout its whole life.

At the end of the open coding phase, the researcher checked his findings with the local project manager as well as with the Geneva HQ coordinator (he conducted this verification step for each case study). The researcher organised a presentation covering the following topics: the description of the TMS usage process, the identification of factors influencing usage, their variation over the

June 2008–November 2009 period, and the analysis of the TMS log data used to triangulate the qualitative data gathered through interviews. The project managers corroborated most of the findings regarding the factors influencing usage in the adaptation and exploitation phases as well as the sequence of usage phases. However, the HQ project manager considered the last sub-phase within the realization benefits phase -- “company’s objectives” and its measures (sales and market share statistics) – to be irrelevant to the company’s Siebel initiative, stating that it was never included in the company’s objectives. This probably explains why the company did not communicate the benefits of Siebel for the Romanian market, mostly focusing on individual productivity improvements. However, the goal of CRM initiatives is to improve sales and/or marketing performance and not only personal productivity/personal job achievement (Khirallah, 2000; Eid, 2007). For this reason, the researcher retained this sub-phase and its metrics. Both project managers agreed on the need – through training – to move users up from the current individual productivity enhancement sub-phase (phase 2 - exploitation) to the individual job objectives (phase 3 – benefits realization) in order to reap the benefits from Siebel. As of January 2010, the content of the training was being developed.

## **Second Case Study**

Table 19 summarizes the evolution of the 19 factors influencing usage during the seven interview rounds.



	Context	Factors	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Round 7
1	Environment	None	-	-	-	-	-	-	-
	Organisation	Departmental silos							
2		Laissez-faire policy							
3		Role of the manager							
4		PM skills (pre go-live)							
5		User business acumen							
6		Mandatory vs. non mandatory usage							
7		Programme management (post go-live)							
8		Profile of the CRM business sponsor							
9		Support & training from project team							
10		Recruiting the right profile							
11		Complexity of processes to automate							
12	Technology	Tool functionalities							
13		Tool technical stability							
14		Tool usability							
15		Tool usefulness							
16		Tool learnability							
17		Existence of workaround applications							
18		User IT antecedents							
19		Data quality							

**Table 19. Contextual Factors Evolution (Case 2)**

An analysis of Table 19 reveals the following.

Firstly, ten factors constantly appeared, and drove usage from day one. They were related to the management of the project (profile of the business sponsor, support and training from project team, complexity of business processes to automate), to internal organisational aspects (laissez faire policy, departmental silos, role of the manager, mandatory versus non mandatory usage), and to achieved benefits (tool usefulness, tool functionalities, data quality).

Regarding the role of the manager, the researcher could almost systematically relate the level of usage of employees with the level of involvement and CRM-related skills of their department manager. The profile (CRM competencies,

business acumen) and motivation (support and control) of the manager were probably one of the best predictors of staff usage. Manager influence was reinforced when he/she used the system. The first case study highlighted the importance of the manager's role, a finding that confirmed within the decentralized and rather chaotic context of the school. Because the decision to use or not the CRM system was more or less left to individual managers, the researcher could clearly identify gaps in usage between departments and isolate causes. It was nevertheless not surprising to observe a lack of unity in an environment characterized by a laissez-faire policy from top management that had gradually led to departmental silos.

Interviewees identified poor data quality as one of the main causes of low or no system use, but poor data quality is often the consequence of other factors such as departmental silos (no sharing of information), lack of a measurement and control system (no feedback mechanism to alert top management on data, process or tool related issues), a laissez-faire policy (no companywide guidelines and coordination), and finally a bad project management practice regarding data migration. Thirteen months after go-live, the issue was still pending even though the project team made good proposals to solve this burning problem. For example, they proposed the creation of a central database team to ensure high quality and consistency of data, but the management team refused this proposal. Centralization did not seem to receive attention in a context of little kingdoms. The project manager sadly noted:

“Data quality sucks and nobody seems to care. I had a meeting with the CRM project manager of company X who had the same issues with a decentralized data entry process. He solved this by centralizing all data entries into one single department, naming a supervisor for that team and designing KPIs to measure her performance. We know what to do. But we just cannot act... the steering committee blocked my proposal.”

Secondly, tool related factors did not play any role in the medium to long-term. Salesforce.com is one of the leading CRM systems and provided users with an easy-to-use, intuitive interface. Therefore, user IT antecedents, tool usability, tool learnability and tool technical stability never played a role in the level of usage. Those four factors were never mentioned after the second round. In fact, the CRM tool was positively perceived by users.

Thirdly, the researcher saw a slow evolution from (pre go-live) project management related factors as described above to (post go-live) program management factors. Not surprisingly, the issues that repeatedly surfaced during the first few interview rounds were linked to project management, namely: insufficient system training, data quality, and unmet business needs. About four months after CRM system deployment, another concern emerged, that of program management. Users noticed that a series of sub-projects were started, mostly for a single department (admissions and recruitment), while the following core issues remained unresolved: bad data quality, a lack of CRM vision, and no coordination of the supposed-to-be companywide CRM initiative. The researcher noticed a three-speed evolution, with one department clearly leading the way (recruitment and admissions), a few departments following (internship, marketing, and nursery) and the rest lagging behind (fundraising and research). The school lacked a global program management to support departments and facilitate change management (Allen, 2008). The school allocated insufficient resources to the CRM initiative after the go live date, and the business sponsor and project manager did not design a companywide road map beyond the implementation of core processes within the tool. Almost all new initiatives were conducted for the recruitment and admissions department, by far the most active one, draining all attention and resources. The situation worsened when the project manager was assigned to another project and the business sponsor left the company. A key user in the marketing department stated:

“This CRM project looks like a boat drifting away after a storm; there is no captain and no direction.”

“A CRM project does not stop at go live, it needs as much attention afterwards. We are left alone now ...” regretted a user of the internship department.

Fourthly, CRM is not a tool but a business initiative. Factors impacting usage rapidly moved from tool-related issues to business-related ones. In fact, interviewees raised very few complaints against the selected CRM solution. But what can a user do if there is no guideline and if management does not have an understanding of CRM business issues? Management’s business competencies had been receiving growing criticism over the second part of the research, namely: lack of understanding of the CRM, no vision, and no plan beyond the

simple use of Salesforce.com for contact entry and emailing. Before starting such an initiative, top management should have ensured that the organisation was knowledgeable and mature enough to understand what CRM meant for them and their institution and what it could do for each department. A very harsh criticism came from the director of recruitment and admissions:

“Our top management does not have the skills to lead such a strategic initiative ... They are fighting for their own territory and do not share a common vision on where our school should be in 3 to 5 years. In fact, most department managers do not have any experience in CRM and more generally in business management. This weakness is real at the school and not only for our CRM project ...”

Fifthly, the lack of top management’s willingness to eliminate the departmental silos slowly killed the CRM initiative (Davenport, 1998). A departmental CRM program cannot a successful CRM program for the following reasons (Desisto, 2010). The company cannot benefit from a 360-degree view of the customer, as some departments do not contribute to the CRM by adding their contacts and activities. Because of a lack of collaboration, no common sales and marketing strategy can be designed. Data quality issues will always remain (i.e. duplicates, basic customer info missing or not up-to-date) as some departments do not contribute to the common “pot”.

The researcher debriefed his initial findings (based on the five themes and their open codes) in a formal meeting with the CRM project manager, the support coordinator, the director of recruitment and admissions, and the manager of the project management office to make sure that his initial analysis was robust. He distributed a presentation summarizing the key points to the project manager, who corroborated the key findings.

### **Third Case Study**

Table 20 summarizes the evolution of the 13 factors influencing usage and reveals the following. Firstly, four factors constantly appear on the radar screen and drive usage from day one. They are related to data quality (loss of data during migration, low value prospect database), mandatory usage (no user gave up), role of the manager (lack of involvement), and tool technical stability (100% availability). Secondly, four factors initially influenced individual usage but shortly disappeared: tool usability (thanks to an initial prompt user support),

user IT antecedents (previous knowledge of a CRM system did not make a long-term difference), business acumen (did not play a significant role after users decided to use Salesforce.com at a minimum level, e.g. to enter basic customer data), and project management practices (appropriate workarounds were found by the CRM implementation company). Thirdly, some factors appeared in rounds two and three: silos (the organisation did not promote cooperation between sales reps), and tool functionalities and usefulness which clearly did not correspond to business needs and users' expected benefits, and negatively impacted personal motivation. This analysis shows that factors influencing usage vary over time, that some factors are well taken care of (e.g. tool usability and functionalities) while others plague the initiative during its whole life (e.g. data quality). Ten open codes contributed to the above analysis, all of them were already found in the previous case studies (e.g. continuous influence of the supervisor, diminishing focus on user support, improvement of tool usability, or lack of cooperation).

	Context	Factors	Round 1	Round 2	Round 3	Round 4
	Environment	None	-	-	-	-
1	Organisation	Data quality				
2		Mandatory usage				
3		Silos				
4		Business acumen				
5		Project management practices				
6		Role of the manager				
7		Personal motivation				
8		Personal benefits				
9	Technology	Tool functionalities				
10		Tool usefulness				
11		Tool usability				
12		Tool technical stability				
13		User IT antecedents				

Table 20. Contextual Factors Evolution (Case 3)

#### 4.7. Axial Coding

Because a majority of axial categories are common to all three case studies, the next sub-section will detail each of the seven axial categories found in the first

case, while the last two sub-sections will merely highlight differences in the categories' characteristics or introduce new axial categories found in the second and third case studies.

#### ***4.7.1. The Seven Axial Categories of the First Case Study***

So far the coding was largely unfocused and 'open'. The researcher identified 83 codes that could have potential meaning and relevance in explaining TMS usage. It is now time to group the open codes into categories. Categories are concepts that stand for phenomena, properties are the characteristics or attributes of a category and dimensions are the range along which properties of a category vary (Strauss and Corbin, 1998). The reduction of the number of concepts facilitates the identification of their properties and dimensions. It facilitates the discovery of interrelationships as well as the conditions that give rise to the concepts. It simplifies the context in which they are embedded, and the action/interactional strategies by which they are handled, managed and carried out. This second step of the coding process is called axial coding and "involves putting the coded data back together in new ways by grouping codes that are conceptually similar" (Boudreau and Robey, 2005). It is a more sophisticated method of coding data that seeks to identify incidents that have a relationship to each other (Goulding, 2002).

Out of the initial list of 83 open codes, 78 were grouped into the new categories resulting from axial coding. About five percent of the initial open codes were discarded because they were either backed up only by a few text segments (between two and three) or had very marginal explanatory power on the emerging axial categories.

A number of axial categories appeared to have the potential to explain and predict TMS usage and explain why TMS users are situated at different post-adoption usage phases and sub-phases 19 months after the CRM system launch. Axial coding resulted in the reclassification of data and open codes into seven larger categories. In order to ensure that the newly found axial categories accurately represented the 78 open codes, the researcher created Table 21, which maps the seven axial codes with the previous open codes. For clarity purposes, Table 21 lists only 43 of the 78 open codes. The researcher

systematically executed this mapping exercise to ensure that major open codes were not omitted in the transition between open and axial coding. The seven axial categories were: management's involvement, TMS implementation practices, users' expectations, users' realized benefits, type of use, program management, and users' attitude. A detailed description of each category follows.

	Category	Description	Sample of the open codes within the category
1	Management's involvement	Management (from top executives to team leaders) behaviours and acts greatly influence TMS usage through e.g. CRM benefits communication, support, control and reward/sanction.	<ul style="list-style-type: none"> <li>- Firm's commitment: CRM product champion.</li> <li>- Firm's commitment: communications of benefits.</li> <li>- Role of management: support, control, pressure.</li> <li>- Recruiting: selecting the right profile.</li> </ul>
2	TMS implementation practices	Project management best practices (from the gathering of business requirements to user training) exert a positive influence on future usage.	<ul style="list-style-type: none"> <li>- Project management skills.</li> <li>- Support and training from the project team.</li> <li>- Improved data sets and functionalities.</li> <li>- Work mode between HQ and local project team (cooperation versus conflict)</li> <li>- Users' participation in early phases of the TMS project (i.e. business requirements and testing).</li> </ul>
3	Users' expectations	Users' expectations set the tone for adoption and post-adoption phases.	<ul style="list-style-type: none"> <li>- Compatibility with previous applications</li> <li>- Learnability</li> <li>- Flexibility</li> <li>- Usability</li> <li>- Recognition in the company</li> <li>- Improved customer planning and analysis skills</li> <li>- Awareness of tool potential on individual job objectives</li> <li>- Improved productivity (compared to previous tool).</li> <li>- Impact on team performance (for managers).</li> </ul>
4	Users' realized benefits	Personal realized benefits act mostly a confirming factors after users' initial perceptions.	<ul style="list-style-type: none"> <li>- Job objective achievement</li> <li>- Impact on team performance</li> <li>- Frustration and complaint</li> <li>- Tool as a companion in every day's tasks</li> <li>- Personal satisfaction (use of a sophisticated tool)</li> <li>- Tool is useless for my job (no personal benefits achieved).</li> <li>- Improving TMS functionalities and stability</li> <li>- Tool usefulness</li> <li>- Size and complexity of business</li> </ul>
5	Type of use	Individual usage is greatly influenced by the mandatory versus non mandatory aspect of CRM use or if alternative solutions to TMS use are still available to users.	<ul style="list-style-type: none"> <li>- Existence of workaround applications</li> <li>- Existence of competing applications</li> <li>- Mandatory usage</li> <li>- Data quality and coverage</li> </ul>
6	Program management	User support, user training and system enhancements should be provided during	<ul style="list-style-type: none"> <li>- Ongoing support and training from project team.</li> <li>- Training needed: account management.</li> </ul>

		the whole life cycle of the TMS to ensure continued usage.	
7	Users' attitude	Users' willingness to learn and progress and to provide a contribution to their company is a long-term, lasting influencer on individual TMS usage.	<ul style="list-style-type: none"> <li>- Personal commitment.</li> <li>- Personal business acumen (CRM).</li> <li>- Commitment to the company.</li> <li>- User's willingness to learn and progress.</li> <li>- Status quo advocate.</li> <li>- Early adopter.</li> <li>- Risk adverse.</li> <li>- "Big brother".</li> <li>- Opportunistic behaviour.</li> <li>- Free rider.</li> </ul>

**Table 21. Axial Categories (Case 1)**

The first axial category reflects the involvement of the company's different management layers. It rapidly became clear that management played a vital role in TMS usage. By building and presenting a strong business case to the user population, by naming an influential product champion to drive the initiative, and by regularly informing users about the realized benefits, top management did influence (or could have influenced) TMS usage. Unfortunately, this did not occur in this case study, resulting in negative consequences for TMS usage.

"I (trade marketing manager) believe that we would be using even more Siebel if our management would show us the concrete benefits of Siebel for our company. My staff enters data and I use reports to control my staff and analyze my customers but what's the impact on my company? ..."

The lack of involvement from top management is partly explained by the following statement from the local project manager:

"The executive committee uses Wizz for reporting, and not Siebel CRM. Top managers are influencers ... they do not know the importance of Siebel ... or maybe they don't care as it is not useful to manage their business. This is why maybe they do not promote this solution ..."

Other layers of management (from directors to team leaders) also played an influential role in TMS use by their teams. By supporting, controlling and rewarding/sanctioning their staff based on TMS usage, or even by acting as a role model as a TMS user, field managers exerted a direct influence on their teams. A striking example is the difference in the usage level between the trade marketing and leisure channel departments, which can be partly attributed to the attitude of their respective management teams.



“Every day we (TMAs) have 20 visits to complete and we must report the visits in the TMS. Once per week he (the manager) runs TMS reports and checks if we enter data in the TMS. We must use it. My manager checks the TMS usage of all TM associates and calls those with low usage. Two weeks after the launch all TMAs were using the TMS.”

When talking about the TMS support, the same TMA explained:

“Yes, I received good support from Daniel (support team) during the first weeks. Our manager helped us also either directly or indirectly by putting pressure on the support team to get what we wanted. Daniel and the project team regularly contacted Geneva (global support team) to get changes in Siebel. They (support team and/or manager) always gave me good reasons why our company could or could not implement the change in Siebel. It gives me confidence in Siebel”.

The second axial category is related to TMS implementation (preceding TMS use) with a particular focus on project management practices. Listed below are a number of good project management practices that had an impact on individual usage. The gathering of business requirements and their translation into technical specifications and later into TMS functionalities, appropriate TMS testing prior to roll-out, data set quality and coverage, the initial training provided, and TMS customization to meet local needs were highlighted as factors influencing future TMS use. For example, the lack of functionalities noticed by users at go-live (e.g. missing dealers’ contracts and reporting capabilities) negatively impacted usage even months after those functionalities were incorporated.

“I (TMA) need to ask my manager if I want to run customer reports. It is not convenient but apparently I cannot have access to Siebel analytics. It is not good and it frustrates me. I know I should use Siebel reports in my daily activities to improve my performance but I am a bit ... discouraged and I am not using analytics as I should.”

Maintaining the legacy applications following TMS launch was retrospectively viewed by the project team as a mistake, as users would return to the legacy applications as soon as they faced issues with the TMS. The participation of certain key users in the early stages of the project (i.e. business requirements, testing) did positively influence TMS use by users who were generally early adopters. Below is a remark made by a user who was part of the initial project team and who reached the last sub-phase of phase two (exploitation) after only a few months.

“Yes, we had support but I (trade marketing associate) did not need much support, I had an advantage because I was involved in the UAT (User Acceptance Testing). I did not have questions. I used the tool and it was ok for me. I also supported my colleagues. ... My colleagues were scared, some did not work with computers before and some did not have any IT background ... They come to me frequently when they have problems. I am the expert in my team.”

The third axial category reflects users' expectations and needs. Expectations and needs might be related to the TMS and the processes it supports (e.g. learnability, usability, compatibility with the previous application, flexibility to individual needs), or to the perceived individual benefits (e.g. productivity, image, recognition, empowerment). Expectations set the tone for the adoption and post-adoption phases. Expectations seemed to influence the initial perception of the tool (mostly during training but for some users even before training), which itself had a significant impact on usage. Two opposite examples illustrate the effect of users' expectations on TMS use. The operational planner was part of the project team. Very early (before the TMS was launched), he learned about TMS benefits for his job, namely: better planning and analysis capabilities, improved individual productivity and increased importance of his role within the company through the consolidation of multiple tools (previously managed by different persons) into one single tool (only managed by him). Even though the tool lacked reporting functionalities and stability during the initial months, he knew that he would benefit from it in the medium to long term. His expectations were high. He therefore maintained a very positive attitude and used the tool to its full potential even during periods of difficulties (e.g. bugs, slow response times). His attitude was reinforced by a high task-technology fit, as the tool completely supported his day-to-day activities. He was now one of the strongest advocates of the TMS, as shown by the following excerpt. Clearly, he systematically minimized some of the key issues (Siebel update frequency and lack of reporting capabilities) facing the TMS.

“Of course there are a lot of advantages with Siebel, all data are now in one place and access to reports is easier. It is quite flexible, but not as flexible as we wanted, as we are not able to change things in one or two days ... we need to wait for the next release. I have to tell users that they have to wait but it is not a big problem ... Another good point is for people in the field, they have everything with them on the laptop, and they can organise their work better. I do not see a major disadvantage. Ah yes .... In the analytics part, users do not know what is what. For example, we have the merchandising subject area but

where are the data and what do they mean? There is no dictionary, user help is very thin ... It is very structured and we have to learn it when we use it.”

An LCA offers an opposite example. This LCA had already worked with a CRM tool before joining the company. He more or less knew about CRM system functionalities but not precisely what the company’s TMS could do for him. His reaction during our first meeting (held less than two months after the TMS introduction) was negative, even though TMS logs showed that he barely used the new tool. His expectations, based on his previous experience, were very low and he kept arguing that the tool would be useless to him. Nineteen months later, he was only entering basic information in the TMS.

The fourth axial category is related to users’ realized benefits from the TMS. Initial expectations did influence TMS use. Tangible benefits reinforced users’ initial perception and in some cases moderately modified it. The researcher did not see a user drastically changing his attitude and usage (from high to low or from low to high) after noticing (or not) realized benefits for his job. This fourth category seems to be a confirming factor for most users and only a marginally influencing factor for a few users. For example, a TMA and a TMM stopped progressing along the post-adoption usage phases after noticing a lack of realized benefits in their daily activities.

“I (trade marketing associate) am disappointed because I see only productivity gains, I was hoping for more business benefits like analysis capabilities and territory management. My boss is disappointing, no help now just control. He wants me to reach stage three (benefits realization) but how? I am a bit lost. The Siebel mechanics work for data entry but what else?”

The fifth axial category deals with the type of use. Three main TMS functionalities include: activity and route planning, customer and market data entry and reporting/analysis. Users involved in activity and route planning (e.g. the operational planner) and customer and market data entry (e.g. trade marketing associates) had no choice but to use the TMS to accomplish their tasks. The TMS was the only tool available and their managers regularly reviewed usage statistics. On the other hand, people using reporting/analysis functionalities (mostly managers) had an alternative solution when the TMS did not meet their needs in terms of reports or data quality/coverage. Either they asked the IT department to extract data and run reports for them or accessed another tool containing a larger set of information and providing some reporting

capabilities. There was a tendency for this second type of use and users to discard the TMS and resort to other applications, as explained by the local IT manager:

“The tool (TMS) is used, the marketing module yes, for analytics I do not know. TMMs should use it Analytics. The problem is that they have other powerful tools like the Microsoft cubes, do not have to wait a couple of days (like in the TMS) to get refreshed data ... also the data granularity is better in the legacy systems. I think there are advantages in using the TMS but only because of centralized data ... On a practical point of view, legacy systems are here, fast, with more data and granularity, it is very important for managers and they know it ...”

The sixth axial category includes codes representing the project team’s management of the TMS initiative after its launch. This phase is called “program management,” which follows the TMS implementation phase. Resources (people and money) allocated to the TMS project clearly decreased a few months after the launch. The HQ support team accepted and implemented fewer change requests, the team was less responsive, and some local resources (i.e. the local project manager) were partially re-assigned to other tasks. This is a major problem that a lot of IS projects face. The spotlight is turned off very soon, maybe too soon, mostly due to budget constraints. However, TMS users still faced issues or asked for major enhancements even months and years following the initial launch. If they cannot get an adequate solution to their evolving business environment, they may lose confidence in the tool and later in the whole initiative. This situation created frustration and did influence the progression of certain users (trade marketing users), as they sometimes felt a bit abandoned when change requests made months earlier were not implemented. However, users did not stop using the TMS because of a lack of ongoing support. This frustration appears in the following merchandising program manager’s comment:

“Siebel is still slow (19 months after its launch) ... and not usable at certain times. For sure it has better reporting capabilities than DECO (a legacy system used for merchandising) ... when it works ...”

The seventh and final axial category deals with user attitude. The user’s involvement in his job -- willingness to learn and progress and to provide a contribution to his company -- seemed to make a significant difference. This positive type of user is the antithesis of the “free riders” we saw in the leisure

channel department. Committed users had usually been working for the company for years and seemed dedicated to the company for personal reasons (sometimes opportunistic such as a job promotion) as well as for the overall good of their company.

“I have been working for the company for three years now. I am now a TMA (trade marketing associate). My goal is to go out in the field and make everything I can so that the image of our products is very good. Our products can be seen by end-users. With 24 different brands of cigarettes, it is important that our products can be seen in every outlet. That is why we continuously visit customers, accounts, and that we try to make our products visible for our end-users, so that they know our brands, and try multiple brands. This is our main objective. I do it because my company is a good company to work for.”

Now that the researcher has defined the seven axial categories, the next step is to review their characteristics (properties) and variation (dimensions). Properties and dimensions help refine the seven categories and illustrate the relationships between categories more clearly at the level of their properties. Strauss and Corbin (1998) recommend that categories be linked at the level of their properties and dimensions in order to help the researcher build “dense, well-developed, and related categories” and “form more precise and complete explanations about the phenomena”. The role that properties and categories play in explaining the phenomena under study will be illustrated by the two opposite usage behaviour examples of a LCA and a TMA.

Table 22 summarizes the properties and dimensions of the seven categories based on the data and codes previously gathered and analyzed. Not surprisingly, many open codes can be recognized in the properties. Some similar open codes were regrouped, and finally 42 properties emerged.

	Categories	Properties <i>(and their dimensions)</i>
1	Management's involvement	<ul style="list-style-type: none"> <li>- Introducing the TMS business objectives to their staff <i>(yes –no)</i></li> <li>- Communicating the TMS achieved business results to their staff <i>(never – occasionally – regularly)</i></li> <li>- Appointing a persuasive TMS product champion to drive change <i>(yes - no)</i></li> <li>- Supporting their teams in their daily use of the TMS <i>(never – occasionally – regularly)</i></li> <li>- Controlling their teams in their daily use of the TMS <i>(never – occasionally – regularly)</i></li> <li>- Rewarding / sanctioning their teams based on the use of the TMS <i>(never – occasionally – regularly)</i></li> <li>- Acting as a role model <i>(never – occasionally – regularly)</i></li> <li>- Recruiting the right profile (technical and business skills) <i>(yes - no)</i></li> </ul>
2	TMS implementation practice	<ul style="list-style-type: none"> <li>- Users' participation in TMS project <i>(none – low – medium – high)</i></li> <li>- Quality of TMS data sets <i>(low – medium – high)</i></li> <li>- Coverage of TMS data sets <i>(low – medium – high)</i></li> <li>- Gap between delivered (by project team) and needed (by users) TMS functionalities <i>(none – low – medium – high)</i></li> <li>- Customization of training content to user profile <i>(none - low – medium - high)</i></li> <li>- Work mode between local and central project teams <i>(cooperation versus conflict)</i></li> <li>- Gap in the translation of business requirements into technical specifications and TMS functionalities <i>(none – low – medium – high)</i></li> </ul>
3	Users' expectations	<ul style="list-style-type: none"> <li>- TMS compatibility with previous tool <i>(none - low – medium – high)</i></li> <li>- TMS learnability <i>(low – medium – high)</i></li> <li>- TMS flexibility <i>(low – medium – high)</i></li> <li>- TMS usability <i>(low – medium – high)</i></li> <li>- Increased visibility and recognition <i>(none – low – medium – high)</i></li> <li>- Expected personal productivity achievement <i>(none – low – medium – high)</i></li> <li>- Expected personal job objectives' achievement <i>(none – low – medium – high)</i></li> <li>- Expected impact on team performance <i>(none – low – medium – high)</i></li> </ul>
4	Users' realized benefits	<ul style="list-style-type: none"> <li>- Realized personal productivity achievement <i>(none – low – medium – high)</i></li> <li>- Realized personal job objectives' achievement <i>(none – low – medium – high)</i></li> <li>- Realized impact on team performance <i>(none – low – medium – high)</i></li> <li>- TMS tool as a day-to-day companion <i>(yes - no)</i></li> <li>- Personal satisfaction (image) of using a sophisticated TMS <i>(none – low – medium – high)</i></li> <li>- Gap between TMS functionalities and users' actual needs <i>(none – low – medium – high)</i></li> </ul>
5	Type of use	<ul style="list-style-type: none"> <li>- Mandatory usage <i>(yes – no)</i></li> <li>- Existence of workaround (competing) applications <i>(yes – no)</i></li> <li>- Gap between TMS data quality and coverage and users' actual needs <i>(none – low – medium – high)</i></li> </ul>
6	Program management	<ul style="list-style-type: none"> <li>- Ongoing support from project team <i>(none - low – medium – high)</i></li> <li>- Ongoing training from support team <i>(none - low – medium – high)</i></li> <li>- Helping users to acquire CRM business related skills (i.e. account management) <i>(never – occasionally – regularly)</i></li> </ul>
7	Users' attitude	<ul style="list-style-type: none"> <li>- Personal commitment and job achievement <i>(none - low – medium – high)</i></li> <li>- Personal commitment and contribution to your company <i>(none - low – medium – high)</i></li> <li>- Personal business (CRM) skills <i>(none - low – medium – high)</i></li> <li>- User's willingness to learn and progress <i>(none - low – medium – high)</i></li> <li>- Opportunistic behaviour <i>(none - low – medium – high)</i></li> <li>- Tolerance to change <i>(none - low – medium – high)</i></li> <li>- Tolerance to risk <i>(none - low – medium – high)</i></li> </ul>

**Table 22. Axial Categories, Properties and Dimensions (Case 1)**

## **Conditions, Context and Action/Interactional Strategies**

Using the coding process proposed by Strauss and Corbin (1998), the researcher identified which categories pertained to the phenomenon, and which referred to conditions, actions/interactions, and consequences. The researcher made this distinction in order to contextualize the phenomena and answer the “why, where, how come and when” questions (conditions), the “whom and how” questions (actions/interactions) and identify the outcomes of the actions/interactions (consequences). The researcher will use the model proposed by Goulding (2002) to illustrate this paradigm and will show how it can simplify the apparently complex interweaving of concepts. Goulding splits the conditions into causal (influencing) and intervening (mitigating) conditions similarly to the model of Strauss and Corbin (1998). However, Goulding combines Strauss and Corbin’s context and intervening conditions into one group, named intervening conditions. Below is an illustration of Goulding’s model using two polar types: a leisure channel associate (LCA1) and a trade marketing associate (TMA1) who were situated at different phases of the post-adoption TMS usage process. The categories, properties and dimensions previously presented in Table 22 are used in Tables 23 (LCA1) and 24 (TMA1) to provide a well-grounded explanation for their usage behaviours.

### **Leisure channel associate (LCA1)**

The keys elements that influenced the LCA1’s TMS use (***causal conditions***) were definitively initial low expectations and later low realized benefits from the tool. In no way did the TMS improve the productivity and job achievements of this LCA. He rapidly realized that, and this was no surprise to him as the TMS was mainly introduced to help his colleagues from the trade marketing team. The TMS did not even support the most important process of the leisure channel business namely, key account management. For example, The TMS did not provide any free text sales activity tracking functionalities, could not store documents, or did not provide sales data for each key account. Those causal conditions were mitigated by numerous factors (***intervening conditions***). Firstly, usage was not made mandatory for him because his managers did not see any benefits from the TMS and therefore did not use it, nor did they pressure their staff to use it. The second mitigating factor was

related to the LCA's attitude. He did not show a great willingness to adopt a new tool and change his way of working. This person was a "paper and pencil" type of marketing person, rather than an early adopter of IT tools. However, one factor positively influencing TMS use was that this tool (even used at its minimum) provided him with a professional image in front of customers. He enjoyed carrying a nice laptop and showing some of the TMS functionalities (mostly basic customer profile information) to his customers. This is probably the only reason why he was entering some data and reporting some statistics using the tool. Causal and intervening conditions described the context for this LCA, as well as why his attitude (***action/interactional strategies***) was very opportunistic. He used the tool only to an extent that could satisfy his personal objectives (i.e. image of professionalism vis-à-vis customers). Commitment to his company's objectives through TMS use did not seem to be one of his main concerns. But can we blame him when his manager does not promote the tool? What were the consequences? Not surprisingly, this LCA showed low TMS usage - limited to the entry of basic customer information - which barely contributed to his personal objectives (***consequences***).



<p><b>Causal conditions</b></p> <ol style="list-style-type: none"> <li>1. User's expectations <ul style="list-style-type: none"> <li>- Expected personal productivity achievement (<i>low</i>)</li> <li>- Expected personal job objectives' achievement (<i>low</i>)</li> </ul> </li> <li>2. User's realized benefits <ul style="list-style-type: none"> <li>- Realized personal productivity achievement (<i>low</i>)</li> <li>- Realized personal job objectives' achievement (<i>low</i>)</li> <li>- Gap between TMS functionalities and users' actual needs (<i>high</i>)</li> </ul> </li> </ol>
<p><b>Phenomenon</b></p> <ul style="list-style-type: none"> <li>- Use of the TMS.</li> </ul>
<p><b>Intervening conditions</b></p> <ol style="list-style-type: none"> <li>1. Management's involvement <ul style="list-style-type: none"> <li>- Supporting their teams in their daily use of the TMS (<i>never</i>)</li> <li>- Controlling their teams in their daily use of the TMS (<i>never</i>)</li> <li>- Rewarding / sanctioning their teams based on the use of the TMS (<i>never</i>)</li> <li>- Acting as a role model (<i>never</i>)</li> </ul> </li> <li>2. TMS implementation <ul style="list-style-type: none"> <li>- Customization of training content to user profile (<i>low</i>)</li> </ul> </li> <li>3. Type of use <ul style="list-style-type: none"> <li>- Mandatory usage (<i>no</i>)</li> </ul> </li> <li>4. User's expectations <ul style="list-style-type: none"> <li>- Increased visibility and recognition (<i>medium</i>)</li> </ul> </li> <li>5. User's realized benefits <ul style="list-style-type: none"> <li>- Personal satisfaction (image) of using a sophisticated TMS (<i>medium to high</i>)</li> </ul> </li> <li>6. User's attitude <ul style="list-style-type: none"> <li>- User's willingness to learn and progress (<i>medium</i>)</li> <li>- Tolerance to change (<i>low to medium</i>)</li> </ul> </li> </ol>
<p><b>Action / Interactional strategies</b></p> <ol style="list-style-type: none"> <li>1. User's attitude <ul style="list-style-type: none"> <li>- Opportunistic behaviour (<i>high</i>)</li> <li>- Personal commitment to your company (<i>low</i>)</li> <li>- Personal commitment to your job (<i>medium</i>)</li> </ul> </li> </ol>
<p><b>Consequences</b></p> <ul style="list-style-type: none"> <li>- Low usage and contribution: phase 1 "adaptation", sub-phase 3 "basic functionality appropriation".</li> <li>- Personal contribution to your company (<i>none to low</i>)</li> <li>- Personal job achievement (<i>low to medium</i>)</li> </ul>

**Table 23. Axial Categories, Properties and Dimensions: LCA1 (Case 1)**

### Trade marketing associate (TMA)

The categories and their properties in this TMA example are often similar to those in the LCA1 example. However, the dimensions of those properties vary considerably between those two users and will explain why they are situated at very different points on the post-adoption usage process. Two **causal conditions** (user's expectations and realized benefits) were similar to those in the LCA example. As expected, the dimensions of the properties 'expectations' and 'realized benefits' were 'high' for the TMA but 'low' for the LCA. High expectations of the TMA were followed by medium to high realized benefits, a

key factor explaining his use of the tool. A third causal condition came into play for the TMA, that of mandatory usage. TMAs were required to use the TMS. This did not guarantee that they would successfully reach the more advanced post-adoption usage phases (see intervening conditions) but it did “force” them to meet the requirements set by management. It is obvious that the ‘mandatory versus non-mandatory’ type of use was an intervening condition in the LCA example as the decision to use the TMS was left at the individual level for LCAs. Numerous **factors mitigated** the TMA’s TMS use. The direct involvement of his manager (role model, training, support, control, reward) positively influenced his use, while the lack of clear company objectives and achieved benefits were slowly starting to confuse and even frustrate the TMA, with a potential long-term repercussion on the intensity of use (“Why should I use the TMS when I am not sure if and how it benefits my company?”). Nevertheless, the TMA’s initial motivation remained (he was involved in the early phases of the project) and his dedication to his job and his company played a positive role and helped him overcome his frustration (**action/interactional strategies**). The TMS had become a day-to-day companion in almost all his tasks. When he needed help, he could easily find support from the project team. However, he would have liked to better exploit the TMS capabilities beyond individual productivity. He and the local project manager believed that account management training would be useful to reach this objective (**consequence**). This seemed to be a reason for not (yet) reaching the “company business objective achievement” phase as only good account management (and not only increased individual productivity) could lead to increased company sales performance.

<p><b>Causal conditions</b></p> <ol style="list-style-type: none"> <li>1. User's expectations <ul style="list-style-type: none"> <li>- Expected personal productivity achievement (<i>high</i>)</li> <li>- Expected personal job objectives' achievement (<i>high</i>)</li> </ul> </li> <li>2. User's realized benefits <ul style="list-style-type: none"> <li>- Realized personal productivity achievement (<i>high</i>)</li> <li>- Realized personal job objectives' achievement (<i>medium to high</i>)</li> <li>- Gap between TMS functionalities and users' actual needs (<i>medium to low</i>)</li> </ul> </li> <li>3. Type of use <ul style="list-style-type: none"> <li>- Mandatory usage (<i>yes</i>)</li> </ul> </li> </ol>
<p><b>Phenomenon</b></p> <ul style="list-style-type: none"> <li>- Use of the TMS.</li> </ul>
<p><b>Intervening conditions</b></p> <ol style="list-style-type: none"> <li>1. Management's involvement <ul style="list-style-type: none"> <li>- Introducing the TMS business objectives to their staff (<i>no</i>)</li> <li>- Communicating the TMS achieved business results to their staff (<i>never</i>)</li> <li>- Supporting their teams in their daily use of the TMS (<i>regularly</i>)</li> <li>- Controlling their teams in their daily use of the TMS (<i>regularly</i>)</li> <li>- Rewarding / sanctioning their teams based on the use of the TMS (<i>occasionally</i>)</li> <li>- Acting as a role model (<i>occasionally</i>)</li> </ul> </li> <li>2. TMS implementation <ul style="list-style-type: none"> <li>- Users' participation in TMS project (<i>high</i>)</li> </ul> </li> <li>3. User's realized benefits <ul style="list-style-type: none"> <li>- TMS tool as a day-to-day companion (<i>yes</i>)</li> <li>- Gap between TMS functionalities and users' actual needs (<i>low</i>)</li> </ul> </li> <li>4. Program management <ul style="list-style-type: none"> <li>- Ongoing support from project team (<i>high</i>)</li> <li>- Ongoing training from support team (<i>medium</i>)</li> <li>- Helping users to acquire CRM business related skills (i.e. account management) (<i>never</i>)</li> </ul> </li> <li>5. User's attitude <ul style="list-style-type: none"> <li>- Personal commitment and contribution to your job (<i>high</i>)</li> <li>- Personal commitment and contribution to your company (<i>high</i>)</li> <li>- Personal business (CRM) skills (<i>low to medium</i>)</li> <li>- User's willingness to learn and progress (<i>high</i>)</li> </ul> </li> </ol>
<p><b>Action / Interactional strategies</b></p> <ol style="list-style-type: none"> <li>1. User's attitude <ul style="list-style-type: none"> <li>- Personal commitment to your company (<i>high</i>)</li> <li>- Personal commitment to your job (<i>high</i>)</li> </ul> </li> </ol>
<p><b>Consequences</b></p> <ul style="list-style-type: none"> <li>- High usage and contribution: phase 3 "benefits realization", sub-phase 1 "individual objective achievement").</li> <li>- Personal contribution to your company (<i>medium to low</i>)</li> <li>- Personal job achievement (<i>high to medium</i>)</li> </ul>

**Table 24. Axial Categories, Properties and Dimensions: TMA1 (Case 1)**

The above examples demonstrate how the categories, properties and dimensions can be combined to explain TMS use. By grouping them into conditions, actions and consequences, a coherent story explaining usage

behaviours emerges. This exercise also validates the correctness of the seven concepts and their properties.

#### **4.7.2. The Ten Axial Categories of the Second Case Study**

The researcher followed the same process during the second case study to derive the axial categories as well as their properties and dimensions. Out of 110 open codes, 98 were used to build categories and 12 were discarded because they were backed up by less than four text segments or had marginal explanatory power on the emerging categories. Table 25 presents the ten axial categories.

	Category	Description	Sample of the open codes within the category
1	Companywide CRM business strategy.	An agreed upon global CRM strategy accompanied with specific business objectives and a high level implementation plan will unite all departments around a common goal and vision and facilitate adoption and usage.	<ul style="list-style-type: none"> <li>- Laissez-faire policy.</li> <li>- Disappointed by a lack of CRM strategy</li> <li>- Lack of project measures</li> <li>- No CRM culture and maturity</li> <li>- No involvement from top management</li> <li>- Increasing need for a CRM roadmap</li> </ul>
2	Involvement and attitude of the manager.	The department manager is a key driver of CRM system usage by his /her staff.	<ul style="list-style-type: none"> <li>- Role of the manager (explain, train, support, motivate, control, reward, sanction)</li> <li>- Frustration and complaint.</li> <li>- Initial trial before giving up.</li> <li>- Commitment to one's company</li> <li>- Promotion of the tool</li> <li>- Open criticisms about the tool and the project.</li> <li>- Disappointed by a lack of CRM strategy</li> <li>- Free rider, opportunistic</li> </ul>
3	Presence of silos.	Silos slow down the diffusion of CRM principles and system usage.	<ul style="list-style-type: none"> <li>- Departmental silos</li> <li>- Silo mentality still prevailing at the end of our project (i.e. no sharing of data, no common effort )</li> </ul>
4	CRM system implementation.	Project management best practices (pre go-live) related to data consolidation, business requirements gathering and project	<ul style="list-style-type: none"> <li>- Delivered tool functionalities</li> <li>- Data quality</li> <li>- Complexity of business processes to automate</li> <li>- Support and training from the project team</li> </ul>

		measurement impact future system usage.	
5	Skill sets of managers.	The CRM skills and experience of managers positively influence their perception and later the usage of the CRM system by their staff.	<ul style="list-style-type: none"> <li>- Business acumen</li> <li>- Recruiting the right profile</li> <li>- Status quo advocate.</li> <li>- Increasing importance of business / CRM related skills</li> </ul>
6	Programme management.	An insufficient allocation of resources after the CRM system launch might jeopardize the whole project and slow down the progression of users along the post-adoption phases.	<ul style="list-style-type: none"> <li>- Support and training from the project team</li> <li>- Unbalanced allocation of resources</li> <li>- Lack of resources.</li> </ul>
7	Managers' and staff expectations and needs.	Expectations and needs about the CRM project, usually based on previous experience, set the tone for adoption and post-adoption usage phases.	<ul style="list-style-type: none"> <li>- Tool usefulness</li> <li>- Tool usability</li> <li>- Tool learnability</li> <li>- Awareness of tool potential on job objectives.</li> <li>- Improved productivity</li> <li>- Impact on team performance</li> <li>- Looking good</li> <li>- Big brother syndrome.</li> </ul>
8	Managers' and staff realized benefits.	The realization of benefits from the CRM system encourages managers to pursue the experience and motivate users in their use of the system.	<ul style="list-style-type: none"> <li>- Increased productivity</li> <li>- Impact on team performance</li> <li>- Tool as a companion in every day's tasks</li> <li>- Tool is useless for my job</li> <li>- Job objectives achievement</li> <li>- Productivity loss</li> <li>- Users' needs met by the tool</li> <li>- Use of advanced functionalities (to support complex processes).</li> </ul>
9	Profile of the project sponsor.	The profile of the project sponsor (IT versus business) impacts the objectives of the project and the usage of the tool.	<ul style="list-style-type: none"> <li>- Long lasting negative impact of project sponsor ("the IT guy")</li> <li>- Business versus IT</li> </ul>
10	Mandatory vs. non-mandatory usage.	Not surprisingly, the decision by management to make or not usage mandatory and to track usage drastically affects usage.	<ul style="list-style-type: none"> <li>- Existence of workaround applications.</li> <li>- Mixed usage of CRM and previous tools (MS suite)</li> <li>- Decide on his / her own to use or not the tool (no pressure from manager)</li> <li>- Go back to previous tools (MS suite)</li> <li>- Decreasing usage in non-mandatory environments</li> </ul>

**Table 25. Axial Categories (Case 2)**

The researcher will now develop four new axial categories.

The first new axial category reflects the (lack of a) companywide CRM strategy, business objectives and high-level implementation plan from top management. Even though the business sponsor was a member of the executive team, he never succeeded in bringing the executive team together to agree on a companywide CRM strategy. The project ended up as a set of uncoordinated and isolated departmental CRM sub-projects moving at different paces and focusing more on internal process improvement than on CRM-related issues such as customer relationships or market share. This lack of a global CRM strategy left many department managers puzzled and unsure about their role within the newly-launched initiative. Some departments did work out their own CRM projects (recruitment and admissions and internship), while others gradually stopped using the CRM tool after an initial try (research and fundraising). This first axial category is certainly the cause of most of the problems subsequently faced during this project. The marketing manager described this situation in the following comment:

“People from top management (the executive team) have their own objectives which do not always seem in congruence with EHL interest as a company. Because they cannot agree on a common policy, and CRM is only one example out of many others, they let managers do what they want. For the CRM, department managers were not concerned as they did not see any major benefits for them. They waited for a clear direction but it never materialized. Only a couple of clever managers saw some benefits for their own business like Lucilla (admissions). But I do not think it is enough to be called a CRM project ...”

The above statement was corroborated by the marketing and communications director:

“The original sin is what I call ‘the cart before the horse’. We could not agree on a common CRM plan. It is not the fault of the project manager. He implemented the IT tool. No ... it is our fault as top managers as we did not agree on what CRM meant for our company ... but we cannot even agree on a common overall strategy so ...”

The second new axial category reflects the organisational structure of the school and the presence of “silos” (i.e. departments working independently). Those little kingdoms were a direct consequence of the laissez-faire policy of the school’s management team. The lack of customer information sharing had a significant impact on tool usage. This was true not so much for departments

such as recruitment and admissions, which was a standalone department, but for the fundraising and research departments, which could have benefitted from a centralization of customer data to improve their activities. Most departments did not share data before the introduction of the CRM tool and this situation did not change afterwards.

“I (fund raising manager) thought ... but I am a naïve guy ... that with this CRM project top management would force managers to enter their contacts and all their relationships with those contacts, so that we could benefit in our activities from this additional information. For example, I constantly need new contacts for my fund raising activities. I know that some of my colleagues have lots of contacts in the industry. But they do not share. Some of my corporate donors also could be used for example for research projects ... but if they do not share their contacts then I do not share mine. It has to be a mutual benefit, no?”

The third new axial category deals with department manager skill sets. An earlier section elaborated on managers' CRM and business management skills and experience and showed how they influenced tool usage. It is worthwhile to note that employees' skills and experience did not impact usage. Most Salesforce.com functionalities were easy to use. They mostly supported straightforward back-office processes and did not require a specific skill set in account management, as in the case of TMAs and LCAs.

The fourth new axial category deals with the profile of the business sponsor. In this second case study, the sponsor was more active than the one appointed in Romania. He chaired almost all project meetings and made regular presentations to the staff about CRM initiative progress. Unfortunately, he suffered from his IT profile. He was never considered to be a trusted advisor and was only viewed as the “IT guy”. CRM is a business strategy and the tool is merely an enabler (Desisto, 2010). The strong IT flavor of this project explained some of the issues highlighted earlier, such as “the cart before the horse,” the persistence of silos and the lack of involvement of the executive committee, which mistakenly viewed this initiative as an IT, process-related project. The departure of the business sponsor at the end of this study triggered the following comment from the project manager:

“Now that he is gone, we should think twice about who should lead this initiative. I do not think this should be his replacement. I believe that the director of admissions or the newly appointed director of marketing and communications should drive this. They will have more authority and respect from other

managers. We need to turn this project into a sales and marketing one now that the tool is deployed.”

Like in the first case study, the researcher attached characteristics (properties) to the ten categories and added their variation (dimensions). Most of the properties came from the open codes listed in the previous section. Table 26 summarizes the properties and dimensions of the ten axial categories. They will be used later to explain user behaviour, and prove their robustness.



	Categories	Properties <i>(and their dimensions)</i>
1	Company wide CRM business strategy.	<ul style="list-style-type: none"> <li>- Laissez-faire policy <i>(yes – no)</i></li> <li>- Presence of a companywide CRM strategy <i>(yes – no)</i></li> <li>- Presence of quantified CRM business objectives <i>(yes – no)</i></li> <li>- CRM maturity of the organisation <i>(none - low – medium – high)</i></li> <li>- Appointment of a persuasive project sponsor to drive change <i>(yes – no)</i></li> </ul>
2	Involvement and attitude of the manager.	<ul style="list-style-type: none"> <li>- Supporting their teams in their daily use of the CRM system <i>(never – occasionally – regularly)</i></li> <li>- Controlling their teams in their daily use of the CRM system <i>(never – occasionally – regularly)</i></li> <li>- Rewarding / sanctioning their teams in their daily use of the CRM system <i>(never – occasionally – regularly)</i></li> <li>- Recruiting the right profiles <i>(yes – no)</i></li> <li>- Promoting the tool within the department <i>(yes – no)</i></li> <li>- Openly criticizing the project and the tool <i>(yes – no)</i></li> </ul>
3	Presence of silos.	<ul style="list-style-type: none"> <li>- Sharing of customer information across departments <i>(never – occasionally – regularly)</i></li> <li>- Centralization of CRM resources and expertise <i>(yes – no)</i></li> <li>- Sharing of a common CRM objective <i>(yes – no)</i></li> </ul>
4	CRM system implementation.	<ul style="list-style-type: none"> <li>- User's participation in CRM project <i>(none - low – medium – high)</i></li> <li>- Quality of data sets <i>(low – medium – high)</i></li> <li>- Gap between delivered and needed functionalities <i>(none - low – medium – high)</i></li> <li>- Customization of training content to individual departments' needs <i>(none - low – medium – high)</i></li> <li>- Gap in the translation of business requirements into technical specs and product functionalities <i>(none - low – medium – high)</i></li> <li>- Quality (business and technical) of support team <i>(low – medium – high)</i></li> </ul>
5	Skill sets of managers.	<ul style="list-style-type: none"> <li>- Business acumen <i>(none - low – medium – high)</i></li> <li>- CRM experience <i>(yes – no)</i></li> <li>- People management skills <i>(none - low – medium – high)</i></li> <li>- Change management skills <i>(none - low – medium – high)</i></li> </ul>
6	Programme management.	<ul style="list-style-type: none"> <li>- Quality (business and technical) of support team <i>(low – medium – high)</i></li> <li>- Lack of resources (business and technical) to support ongoing requests from departments <i>(yes – no)</i></li> <li>- Fair allocation of resources among departments <i>(yes – no)</i></li> </ul>
7	Managers' and staff expectations and needs.	<ul style="list-style-type: none"> <li>- Expected tool usefulness <i>(none - low – medium – high)</i></li> <li>- Expected tool usability <i>(low – medium – high)</i></li> <li>- Expected tool learnability <i>(low – medium – high)</i></li> <li>- Expected improved productivity <i>(none - low – medium – high)</i></li> <li>- Expected impact on team performance <i>(none - low – medium – high)</i></li> <li>- Expected increased visibility and recognition <i>(none - low – medium – high)</i></li> <li>- Awareness of tool potential <i>(yes – no)</i></li> <li>- Fear of big brother syndrome <i>(yes – no)</i></li> </ul>
8	Managers' and staff realized benefits.	<ul style="list-style-type: none"> <li>- Realized increased personal productivity <i>(none - low – medium – high)</i></li> <li>- Realized increased team productivity <i>(none - low – medium – high)</i></li> <li>- Realized individual objective achievements <i>(none - low – medium – high)</i></li> <li>- Realized team objective achievements <i>(none - low – medium – high)</i></li> <li>- Tool as a companion in daily tasks <i>(yes – no)</i></li> <li>- Use of advanced functionalities to support complex processes <i>(yes – no)</i></li> <li>- Gap between realized and expected benefits <i>(none - low – medium – high)</i></li> </ul>
9	Profile of the project sponsor.	<ul style="list-style-type: none"> <li>- Business (vs. IT) profile of the project sponsor <i>(none – low – medium – high)</i></li> <li>- Trust from management team <i>(none – low – medium – high)</i></li> <li>- Trust from department managers <i>(none – low – medium – high)</i></li> </ul>
10	Mandatory vs. non-mandatory usage.	<ul style="list-style-type: none"> <li>- Existence of workaround applications <i>(yes – no)</i></li> <li>- Mixed usage of workaround applications (MS office suite) and Salesforce.com <i>(yes – no)</i></li> <li>- Individual decision to use or not the tool <i>(yes – no)</i></li> <li>- Tool imposed and controlled by manager <i>(yes – no)</i></li> </ul>

**Table 26. Axial Categories, Properties and Dimensions (Case 2)**

The last step recommended by Strauss and Corbin (1998) is to identify which categories pertain to the phenomenon and which refer to conditions, actions/interactions and consequences. Table 27 explains the usage behaviour of an admissions officer.

The key element that influenced the admissions officer's CRM system use was definitively the fact that her manager made it mandatory (**causal condition**). The manager's decision was based on high expectations (tool usefulness, impact on team performance, awareness of tool potential) due to her business acumen and previous CRM experience and confirmed by initial realized benefits (increased team productivity, team objective achievement). Those causal conditions were mitigated by numerous factors. The participation of the admissions officer in the early phase of the project, the resulting high expected tool usefulness, realized increased personal benefits through process automation, and her good people and change management skills positively influenced her CRM system use (**intervening conditions**). The involvement of her manager (support, control, reward, sanction) later ensured that the tool was used appropriately. However, some factors negatively affected her use, such as the lack of resources to support ongoing change requests, which prevented her from using advanced functionalities to support some of her more complex processes. Overall, causal and intervening conditions explained the level of usage of this admissions officer (beginning of phase 3) and her positive attitude towards the CRM tool (**action/interactional strategies**). The absence of a companywide CRM strategy, recurring data quality problems and the lack of information sharing (silo) did not impact this autonomous department. The **consequence** was the admissions officer's achievement of productivity gains leading to better job objectives.

<p><b>Causal conditions</b></p> <ul style="list-style-type: none"> <li>- Type of use <ul style="list-style-type: none"> <li>Tool imposed and controlled by manager (yes)</li> </ul> </li> <li>- Manager's expectations (based on high business acumen and previous CRM experience (yes)) <ul style="list-style-type: none"> <li>Expected too usefulness (high)</li> <li>Expected impact on team performance (high)</li> <li>Awareness of tool potential (yes)</li> </ul> </li> <li>- Realized benefits <ul style="list-style-type: none"> <li>Realized increased team productivity (medium)</li> <li>Realized team objective achievement (medium)</li> </ul> </li> </ul>
<p><b>Phenomenon</b></p> <ul style="list-style-type: none"> <li>- Use of the CRM system</li> </ul>
<p><b>Intervening conditions</b></p> <ul style="list-style-type: none"> <li>- User's participation in the CRM project (medium)</li> <li>- realized increased personal benefits (medium)</li> <li>- Expected tool usefulness (high)</li> <li>- Manager's people management skills (medium)</li> <li>- Manager's change management skills (high)</li> <li>- Involvement of manager (support, control, reward, sanction) (regularly)</li> <li>- Lack of resources to support ongoing change requests (yes)</li> </ul>
<p><b>Action / interactional strategies</b></p> <ul style="list-style-type: none"> <li>- Tool as a companion in daily tasks (yes)</li> <li>- Fear of big brother syndrome (no)</li> <li>- Promoting the tool within the department (yes)</li> <li>- Openly criticizing the project and the tool (no)</li> </ul>
<p><b>Consequences</b></p> <ul style="list-style-type: none"> <li>- Usage: phase 3 / individual job adjectives achievement</li> <li>- Realized individual job achievements (medium)</li> <li>- Realized increased personal productivity (high)</li> </ul>

**Table 27. Axial Categories, Properties and Dimensions: Admissions Officer (Case 2)**

#### **4.7.3. The Eight Axial Categories of the Third Case Study**

The researcher found eight axial categories for the third case study (Table 28).

	Category	Description
1	IT/business alignment	If the CRM system does not correspond to business needs, it might be rejected by users and its usage will be low.
2	Involvement and attitude of the manager	The department manager is a key driver of CRM system usage by his/her staff.
3	Presence of silos	Silos slow down the diffusion of CRM principles and system usage.
4	CRM system implementation	Data migration, user acceptance testing, business requirements gathering and implementation in the CRM system are three PM areas affecting future system usage.
5	Skill set of manager	CRM and people management skills and experience of the manager impacts staff usage.
6	Users' expectations and needs	Expectations and needs set the tone for future adoption and usage.
7	Users' realized benefits	The realization of benefits encourages managers and users to use the CRM system and discover more advanced functionalities.
8	Mandatory usage	Mandatory usage puts pressure on users but does not guarantee user progression along the post-adoption usage phases

**Table 28. Axial Categories (Case 3)**

The first category “IT/business alignment” is the only new one, and will now be developed. Although it is usually characterized by (in) appropriate CRM system functionalities, the researcher felt that this category should stand on its own as it explains some of the previously highlighted issues (e.g. data quality, missing functionalities, and lack of communication). For the remaining seven, their description and associated open codes, properties and dimensions were already introduced in the preceding two case studies.

A recurring user comment during each round of interviews is illustrated by the following two excerpts:

“We (sales reps) were not involved in the choice and implementation of the CRM system. It is not a good practice as we are the only ones to know what it is good for us. Our sales director does not have prior experience in selling luxury real estate in Switzerland and the CRM coordinator is an IT guy... This explains why we are lacking some key functionality such as an advanced customer/property search tool. It is ok for now but when business takes off we

will have many more clients and objects to sell and we will then need such a query tool.”

“I (sales rep) used to work with a real estate CRM tool and I must say that Salesforce.com does not fit our needs. It is too complex and I cannot even get a customer or property summary profile on my screen. The information is exploded into multiple tabs ... How do I do when I have a potential customer on the phone? I cannot even extract simple information on the spot!”

The above comments show that the tool is not aligned to business needs and that Salesforce.com seems too complex, and has not been customized to real estate sales needs. The issue is not that it cannot be adapted, it is just that nobody asked for it. This lack of customization reinforced the frustration of many sales representatives who were left out of the initial project. The selection of Salesforce.com was questioned by a number of sales reps. Table 29 lists the open codes related to this new axial category, and table 30 shows its properties and dimensions.

<b>Axial Category “IT/business Alignment”</b>
Tool functionality fit with real estate needs (e.g. no summary profile, weak search capabilities, no networking capabilities)
Tool usefulness (e.g. to reach individual job objectives)
User participation in the project
Manager’s real estate experience

**Table 29. Axial Category “IT/Business Alignment” and its Open Codes (Case 3)**

Category	Properties <i>(and their dimensions)</i>
IT/Business Alignment	<ul style="list-style-type: none"> <li>- Tool functionality fit with real estate <i>(none – low – medium – high)</i></li> <li>- Tool usefulness <i>(none – low –medium – high)</i></li> <li>- User participation in the project <i>(none – low –medium – high)</i></li> <li>- Manager’s real estate experience <i>(none – low –medium – high)</i></li> </ul>

**Table 30. Properties and Dimensions of “IT/Business Alignment” Axial Category (Case 3)**

In our real estate case study, the low fit of the CRM tool with expected real estate needs, combined with almost no user involvement in the CRM project and a lack of real estate sales experience of the sales director led to low tool usefulness and resulted in initial low adoption and later low usage.

This marks the end of the data collection and initial analysis process (open and axial coding phases) performed for each individual case study. Axial categories, together with their properties and dimensions, seem to explain individual CRM system usage; several illustrations on specific users were shown, and tend to confirm their explanatory power. Now is the time to move to a more conceptual phase (selective coding), where the notion of misfit will appear as a potential core category explaining CRM system usage.

## Chapter 5. Within-Case Results

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The following three sections will present and illustrate, case by case, the notion of misfit, its different types and their evolution throughout the post-adoption usage phases.

### 5.1. Findings of the First Case Study

#### 5.1.1. *The Notion of Misfit and its Seven Types*

The section below describes the process through which the researcher identified the core categories.

A review of the properties and dimensions of the seven categories (Tables 22, 23 and 24) reveals that the notion of gap or misfit might be the core category explaining TMS use. What seems to impact TMS use is the gap between individual user expectations and needs and the functionalities actually delivered by the TMS. This is illustrated by the following comment from the operational planner (case one):

“... as I said, we implemented what we needed, nothing more nothing less ... some standard Siebel functionalities like sales orders are not used because we did not want it or need it. Of course, there are functionalities that we use less frequently, let us say only once a month, but we do not have ‘nice to have’ functionalities. We must and do find things that we need and they must work as we need.”

The second illustration of misfit deals with the complaint that the researcher sometimes heard from users about the translation of business requirements into technical specifications, and then tool functionalities (see the “TMS Implementation Practice” category, Table 22). The best example is the non-acceptance by the admission and recruitment team of the newly developed recruitment process in salesforce.com (case two).

“I (admission officer) think that they (IT team) turned the business requirement documents upside down before translating it into Salesforce.com ... it is not our process! We just cannot use the CRM to support our admission processes.”

During both rounds of interviews, the researcher often heard user reactions indicating a (mis)fit or (mis)alignment between their needs/expectations and the TMS actual delivery, such as:

“I thought that Siebel would do ...”

“Compared with the functionalities of the previous tool, Siebel now allows me to enter all data I need to track my customers’ inventory and activities... This new tool better matches our field marketing requirements.”

“I do need reporting functionalities to track my field staff but Siebel is pretty lousy and cannot deliver what it is supposed to do.”

“Siebel now consolidates many data sources and helps me perform my tasks more efficiently as before. It is a real plus. I needed just that.”

“Siebel is useless for my job ... as it does not fit our business model”

When the researcher asked users if the TMS initiative was a success, they often included in their initial answer a key missing functionality in order to highlight something required but not delivered. For example, when asked about the success of the CRM initiative, a TMA immediately stated key missing features:

“We miss dealers’ contract data and reports. We need them when we prepare customer visits. I guess that contract data will be loaded in July. For reports I do not know why they are not in Siebel but they would be helpful.”

The above user remarks highlight the fact that users always compared TMS functionalities or data with what they needed or expected from such as tool. This led the researcher to explore the notion of fit/misfit. This thesis deliberately uses the term misfit (instead of fit) as all interviewees - except the operational planner and the local project manager - tended to systematically elaborate on tool, processes and project organisation deficiencies when asked about their TMS use. Problems were the most salient events coming to the mind of people when invited to highlight instances in which the TMS worked well or worked poorly. Users sometimes did not talk about benefits until directly asked about the added value brought by the CRM system. In the context of this interpretive study, the notion of misfit best represents the ideas of respondents.

The researcher identified misfits influencing TMS use and listed the seven most important ones in Table 31. A misfit is defined by the gap between what users required and what the TMS and the organisation actually delivered through the TMS initiative. The researcher did not limit the gap analysis to the TMS functionalities. He also included deliverables from the various ‘organisational’



actors such as top management (e.g. communication of the TMS business objectives), direct supervisors (e.g. staff coaching) or the project team (e.g. user support). Those organisational factors played a significant role in TMS use.

Gap	Explanation
Communication	Communication misfits occur when management does not communicate the initial objectives and later the achieved benefits of the TMS initiative, leaving the user population without any clear guidance and directions.
Supervision	Supervision misfits occur when the supervisor does not support, train, control and reward / sanction his staff in a way to promote an environment conducive to an appropriate TMS use.
User support	User support misfits occur when the support required to fully exploit the TMS is not delivered to the user population by the central and local project teams, the direct supervisor or colleagues.
Skill sets	Skill sets misfits occur when the capabilities required to fully exploit the TMS are not met by individual users. Capabilities might be related to the use of an IT system or to more general business skills such as account management.
Commitment	Commitment misfits occur when individual users do not believe that the TMS initiative will generate benefits for themselves and / or for their company. This lack of commitment negatively impacts the learning and execution of the new processes introduced by the TMS and the achievement of the objectives set by management.
Functionality	Functionality misfits occur when users are less efficient in their day-to-day tasks when they use the TMS than they were with the previous tool. Functionality misfits may be due to downgraded (i.e. reporting) or missing (i.e. account management) TMS functionalities.
Data	Data misfits occur when data stored in the TMS are inaccurate (i.e. frequent inconsistencies with legacy systems), do not cover users' needs (i.e. missing sales data), lack timely updates (i.e. twice a week instead of previous daily loads) or are hardly accessible (i.e. bugs or slow response time of the reporting system).

**Table 31. The Seven Misfit Types (Case 1)**

In order to ensure consistency between the axial and selective coding phases and make sure that no axial category was omitted in the development of the core category, the researcher mapped the seven types of misfit against the seven axial categories (Table 32). All seven gaps related to at least one axial category (more precisely to at least one property of the axial category). Checking consistency between all phases of the coding process (open coding, axial coding and its properties and dimensions, selective coding and its core

category) is an important step towards delivering a coherent, well-grounded theory.

	Misfit	Axial category	Example of properties (only one per misfit)
1	Communication	Management's involvement; TMS implementation; program management.	Introducing the TMS business objectives to their staff.
2	Supervision	Management's involvement; users' expectations.	Controlling their teams in their daily use of the TMS.
3	User support	Management's involvement; program management; users' expectations; users' realized benefits.	Supporting their teams in their daily use of the TMS.
4	Skill sets	Management's involvement; users' attitude; Program management; users' expectations; users' realized benefits.	Personal business (CRM) skills.
5	Commitment	Management's involvement; users' attitude; users' expectations; users' realized benefits; program management.	Personal commitment and contribution to your company.
6	Functionalities	TMS implementation; users' expectations; users' realized benefits; type of use.	Gap between delivered and needed TMS functionalities.
7	Data	TMS implementation; users' expectations; users' realized benefits; type of use.	Quality of TMS data set.

**Table 32. Matching between Axial Categories and Misfit Types (Case 1)**

The researcher will now define and illustrate each misfit type.

Users occasionally mentioned a *communication misfit* (Table 33) during the first round of interviews. They expressed regret about the lack of top local management involvement and, therefore, the lack of companywide TMS project visibility. This misfit did not influence TMS use during the initial weeks and months when people were learning and then using the tool's basic functionalities (e.g. how to enter and query customer and market data in the TMS). TMAs were required to use those basic TMS functionalities by their supervisor, and were initially focused on learning this new tool in order to perform their day-to-day tasks. The low usage by LCAs was not due to a lack of communication but to other factors such as the supervision and functionality misfits. However, the communication misfit was highlighted by many users (staff

and managers) during the second round of interviews as top management never communicated the objectives or the achieved benefits of the TMS initiative. This lack of communication left many users unsure about their personal contribution to the overall project, which negatively influenced TMS use in the medium- to long-term (Allen, 2008). More precisely, it impacted usage progression towards more advanced, benefit-generating functionalities such as customer and market analysis and ultimately account management. Because new and sometimes more time-consuming TMS processes were introduced, users expected not only to understand why they had to use a new tool but also to get regular updates on the benefits achieved at department and company levels. They felt that top management did not really care about this initiative. This feeling was reinforced by the fact that higher levels of management did not use the TMS and other legacy systems were still the data sources for their monthly reporting. Very few users were aware of the TMS business objectives besides the obvious technology standardization reasons, and none knew about the generated benefits for their company. This user population (especially marketing field people) needed more than just instructions; they expected feedback on their contribution to the company's objectives. Unfortunately, the project team's message to users focused only on process improvement and this apparently did not resonate with some of the field people, especially managers. The potential business benefits possible through improved territory and account management practices were mentioned later (mid-2009) and only within the project team. There was a clear misfit between the company's project objectives and the expectations of some of the most committed field staff and managers. Clearly, trade marketing staff and manager motivation was lower after 19 months of use, and they openly admitted that they were not motivated to discover and use more advanced functionalities.

"Why bother and invest time and energy if my top management does not care? We just enter data and everybody is happy ..." was a typical response during the second round of interviews. Of course, this misfit often occurred in conjunction with other misfits such as commitment and user support, but it definitively played a key role on long-term usage for a population who wanted to be more than simple users of a tool.

Misfit type	Examples from case study
Communication	<ul style="list-style-type: none"> <li>- No official communication was made by top management about the TMS initiative (no presentation, not even an email sent to staff before or after the launch of the TMS).</li> <li>- TMS usage statistics such as frequency and functionalities used were collected by the local project team and sent to the HQ team but not communicated to the user population (employees and managers).</li> <li>- Generated benefits such as increased individual productivity were never communicated to the user population.</li> <li>- Business benefits such as increased market share were not considered by the project team as a key performance indicator (KPI) although they were considered by some users as a key objective.</li> <li>- A return on investment (ROI) was calculated by the local project manager but was unknown to local middle management.</li> <li>- The local TMS business sponsor was unknown to almost all users who believed that the local project manager was the business sponsor. This tells a lot about the involvement of management.</li> </ul>

**Table 33. The Communication Misfit (Case 1)**

A *supervision misfit* (Table 34) partly explained the different usage behaviours of the TMAs and LCAs. The TMS was a complex system, far more sophisticated than the previous tool. According to the local project manager, helping users discover and use the TMS was a very important manager's task. Of course, the TMS support team was available to handle user requests, but the direct supervisor was supposed to act as the first support and control level. Unfortunately, this message was not always well received and understood by field managers, leading to significant usage discrepancies between teams. Most users expected and needed more supervision from their direct managers to enable them to progress through the different usage phases and potentially better achieve their objectives. Some were satisfied with the involvement of their supervisor (e.g. TMA1, operational planner), while others were just left alone (e.g. LCAs). This misunderstanding mostly stemmed from a lack of expected or/and realized benefits initially perceived by the respective managers. Even within the trade marketing business unit (where usage was

mandatory), users were progressing at a different pace depending on their supervisor's commitment and belief in the TMS initiative. For example, after 19 months, TMA1 reached phase three (benefits realization), while TMA2 was still at phase two (exploitation). Those TMAs were part of two different teams headed by two different managers, one supervising his team very closely while the second was far more distant. TMA1's supervisor was monitoring his TMAs' usage on a weekly basis and regularly provided feedback about the quantity and quality of data entered. He assessed TMAs on their usage, while the second trade marketing manager did not. This second trade marketing manager was barely using the tool whereas the first was trying to act as a role model for his team. This really made a difference, especially when combined with individual commitment and skills, two other identified misfit types. Obviously, the gap in the way the direct supervisors supported, controlled and rewarded/sanctioned their teams was even larger when comparing the leisure channel and trade marketing teams. Leisure channel managers did not believe that the TMS initiative could generate benefits for themselves and their teams and therefore did not spend any time in supporting their staff, as per LCA and project manager comments. LCAs barely reached the end of phase one (adaptation). Again, this supervision misfit was not the only reason for a lack of LCA usage, which was primarily due to functionality misfits.

Misfit type	Examples from case study
Supervision	<ul style="list-style-type: none"> <li>- No regular control on the quantity and quality of data entered by staff in the TMS.</li> <li>- No reward / sanction scheme for an appropriate / inappropriate usage behaviour.</li> <li>- No TMS usage based objectives on users' job description.</li> <li>- No first level support and training provided by direct supervisor.</li> <li>- TMS not used by direct supervisor who does not believe in the added value of the initiative.</li> </ul>

**Table 34. The Supervision Misfit (Case 1)**

*A misfit between the users' support and training needs (after the TMS launch) and what was delivered by the TMS local and HQ support teams (table 35) was another factor influencing usage. This gap was initially minor and could not explain the different behaviours encountered in the user population, as most interviewees considered user support to be excellent. However, several months*

after TMS launch, some of the local and HQ resources were assigned to other projects, and the researcher noticed through regular telephone conversations with the local project manager that the gap was slowly but surely widening. Local resources were still available to support users facing usability or data consistency, but technical HQ resources implementing major change requests were not as available as before. A higher percentage of change requests were not implemented (more than 50% versus less than 10% during the first weeks of operations), and it took more time to roll out the agreed-upon ones. The HQ support team was far less reactive to solve local technical issues than just after the go-live date; an increasing number of local issues arose, such as data inconsistencies with legacy systems. Even the local project team started to show signs of frustration as they discovered that the lights had been turned off on their project and that the HQ team's focus shifted to another CRM project in Austria. Users needed regular support and training during the whole life cycle of the TMS and not just during the first weeks of operation. Their business environment continuously evolved and therefore change requests were raised on a regular basis during the 19 months of this study. Unfortunately, it became harder to justify HQ resources to implement the requested changes. A weird feeling of being "left alone" appeared within the project team and the user community who slowed down its adoption and use of more advanced functionalities. Notably, this misfit did not prevent people from using the basic and mandatory functionalities of the TMS, it only slowed them down.

<b>Misfit type</b>	<b>Examples from case study</b>
User support	<ul style="list-style-type: none"> <li>- The frequency of TMS data updates was still judged as unsatisfactory after 19 months (twice a week instead of the requested daily frequency).</li> <li>- More than 10 pending issues listed on the project manager's Excel worksheet in NOV 2009 (mix of technical / process issues) while the list was composed of only 2 or 3 requests at the beginning of 2009.</li> <li>- Almost all local customization requests were turned down.</li> <li>- Local project manager was only assigned 20% to do the follow up on the TMS initiative after go-live.</li> <li>- No more official training sessions organised for new comers. Training performed by colleagues or supervisor or former project team members on a voluntary basis.</li> </ul>

**Table 35. The User Support Misfit (Case 1)**

*A misfit between the users' skill sets and the technical and business requirements to fully exploit the TMS (Table 36) explained why very few users reached the last usage phase. The issue was not so much the usability and learnability of the tool itself, although the initial reaction of users was rather skeptical. Interviews revealed that this initial negative reaction was due to the fact that the previous local solution seemed to fit most users' needs. It was a local reaction against a tool imposed by HQ. The training session focused on how to enter and query data, followed by an explanation and demonstration of all TMS processes. Participants had the opportunity to practice during the training and then received detailed materials in order to work on additional exercises once they were back in the office. CRM systems are usually more intuitive and less complex to use than ERP systems. Even though this TMS was not as user friendly as its predecessor, the initial complaints of non-IT-literate users disappeared after a few weeks. A competent and very reactive project team resolved initial difficulties. No user complained about TMS usability during the second round of interviews (November 2009). However, learning the basic functionalities of the TMS was not sufficient. Business skills such as account management and business analysis should have helped users exploit more advanced TMS functionalities (reports and dashboards) and generate tangible benefits. The added value of the new TMS was the analysis capabilities it provided to field people, namely: real-time reports, dashboards and KPIs were available at their fingertips. Unfortunately, as the local project manager put it: "Having a Ferrari is not enough; you need to know how to drive it and I am not sure that we all have a driver's license ..." This was confirmed by the local IT manager, who compared the business skills of the two user populations in North America and Romania: "Our field staff is not as advanced as North American field people. They lack business skills, marketing business skills which are needed to generate benefits from such a powerful tool (TMS) ... our people are just entering data in the TMS and then do not seem to know how to use the data for business analysis and improved decision-making. The initial TMS training was not focused on this business aspect, too bad."*

Misfit type	Examples from case study
Skill set	<ul style="list-style-type: none"> <li>- Lack of business skills within the user population such as business analysis and account management.</li> <li>- TMS stands for Territory Management System: it is all about managing territories and customers and not so much about feeding data in a system.</li> <li>- Most users saw themselves as sales people entering data in a new system and not really as territory managers.</li> <li>- The profile of the current staff was more that of sales reps than account managers. Most field people did not know how to exploit the data in the TMS to improve their merchandising or better target specific areas or customers. They still relied too much on their management for this part of the job (“the good old way”).</li> </ul>

**Table 36. The Skill Set Misfit (Case 1)**

*A misfit between the users’ individual motivation and commitment to the company and the technical and business requirements to fully exploit the TMS (Table 37) played a role. Skills alone are not sufficient; users need to have the necessary motivation to use a new tool, to learn new processes, and sometimes to adhere to new job objectives. Over the long term, this is what made the difference in tool usage by helping users overcome some initial resistance to change and risk as well as compensating for a lack of business and technical skills. Three examples presented below illustrate the impact that motivation and commitment played on the progression of individual users along the post-adoption usage phases.*

The first example highlights differences between TMA1 and TMA2. TMA1 participated in the project as a tester during the user acceptance test (UAT) phase, and had the opportunity to contribute to the TMS functional specifications, a clear motivational factor explaining his future use. TMA1 also openly stated that he wanted to reach a supervisory position (*“I am not going to be a TMA all my life ...”*). He considered that optimal TMS use was proof of his dedication and superior skills. This explains why he was one of the most advanced users in the field. In contrast, TMA2 was satisfied with his current position and did not look for new opportunities: *“I do what my supervisor wants me to do. I enter all required data in the TMS so that he gets good reports. That’s my job!”* Although this TMA2 increased his productivity in collecting and structuring customer data, improving his account management skills was obviously not part of his short- and medium-term objectives. He considered



himself as a field person “*entering data in the TMS so that his manager could take better decisions for his markets and customers.*”

The second example highlights the operational planner’s commitment. With TMS introduction, his job scope considerably increased. Several tools used by his colleagues were consolidated into a single tool managed only by him. Increased visibility and increased importance of his role were two factors that seemed to motivate this individual to use the TMS. After 19 months, he had become one of the TMS experts in Romania and was supporting local users on a regular basis, especially for their reporting needs.

The third example deals with LCAs. They were part of a small business unit (less than 10% of the company’s total sales), a sort of silo within the company, dealing exclusively with night clubs and restaurants. The researcher perceived that LCAs were less concerned with the future of the company and considered TMS introduction to be a “*big brother kind of tool*” rather than a tool to help them become more structured and professional in their day-to-day activities. This explained their “free rider” and opportunistic attitude and their decision (at employee and management level) to use the tool only for basic data entry (“*because we have to ...*”).

Misfit type	Examples from case study
Motivation and Commitment	<ul style="list-style-type: none"> <li>- The TMS was an opportunity for certain TMAs to move out of their day-to-day data collecting activities and benefit from better TMS reporting and analysis capabilities to analyze and potentially increase their market penetration.</li> <li>- Management (TMM, operation planner and merchandising manager) were old timers (more than 10 years of seniority) and strongly believed that their company was a good company to work for (mostly for career and financial reasons). They were dedicated to their company and adhered to the TMS initiative almost instantly.</li> <li>- New comers (the two LCAs had less than two years of seniority) did not show such commitment. They were part of a small business unit and felt that whatever they could do would not have any effect on the company’s performance.</li> <li>- The management of those two LCA (as per the local project manager’s comments) also had the same impression of silos. They refused to come to our proposed meetings in 2008 and 2009.</li> </ul>

**Table 37. The Motivation and Commitment Misfit (Case 1)**

*A gap between the users' expected and realized benefits (productivity, job objective achievement) and the TMS functionalities (Table 38) and data (Table 39) was of course a main factor explaining the lack of enthusiasm of certain users after they discovered that the TMS lacked functionalities or that TMS data quality was sometimes doubtful.*

There were three main types of TMS functionalities: field activity planning, data gathering and data reporting and analysis. The first two types of functionalities included the planning of field staff activities by the operational planner (e.g. which retailers to visit, which routes to go) and the recording of customer data (e.g. inventory and merchandising equipment) and market data (e.g. competitive products available at retailers' sites) by TMAs and LCAs when visiting retailers. Most users perceived the TMS to be less intuitive than the previous tool, and the productivity of both the planner and field staff decreased during the initial weeks after introduction. However, with the help of a very competent and reactive local support team, all users returned to their initial level of productivity during 2008, and most users achieved higher productivity in 2009. No users complained during the second round of interviews. These two types of functionalities fit users' needs: the project team did an excellent job of understanding the major business processes of the marketing users and automating them in the TMS. Unfortunately, the third category of functionalities (reporting and analysis) never matched users' expectations and needs. Those functionalities were almost unusable when the TMS was launched: for example, it took up to ten minutes to run a report, and regular crashes occurred when the report contained too many structured query language (SQL) queries. As already mentioned, reporting was not the project team's focus (at least before the go-live date). Retroactively, they admitted that they made a big mistake because field managers (trade marketing and leisure channel) were expecting those functionalities in order to improve their understanding of their markets and customers and make better decisions (e.g. which inventory to replenish, which retailer to visit, which merchandising campaign to launch). What a disappointment when the reporting and analysis functions did not add value, even after 19 months, reporting is not any better than with the previous tool. The lack of reporting and analysis capabilities had two major consequences. First and foremost, many managers did not use the TMS and, even worse, found alternative tools (with the help of the local IT department) to fill this gap.

They rapidly lost faith in the tool, and were sometimes reluctant to push their teams to enter data that then could not be fully exploited to improve decision making, a typical cascading effect. Secondly, reporting and analysis is very important for field staff who wanted to do account management. Without such tools they could not analyze their customers and territories. The staff attempted a workaround (extracting data into Excel), but this proved to be impractical. This reporting issue considerably slowed or stopped the progression of many field users towards the benefits-generating phase of the post-adoption usage process, and still blocked them after 19 months. Compatibility of the TMS to the tasks performed by users contributed a lot to their usage (Al-Gahtani and King, 1999). However, the project team was not completely at fault. Of course, they should have developed appropriate reports and dashboards by the go-live date to ensure adoption and usage. But as the local project manager bluntly put it:

“When we asked TMAs, LCAs or their managers which kind of analysis they wanted, well ... they did not know or they asked for the same reports they used to have on paper with the previous tool. We all just lack business analysis skills.”

Misfit type	Examples from case study
Functionality	<ul style="list-style-type: none"> <li>- Only two reports accessible by TMAs after 19 months.</li> <li>- When a TMA needs another report, he must first contact his manager for approval. Then the report is developed by the local support team. Can take days or weeks. Discouraging.</li> <li>- Managers have access to more reports (e.g. summary report for all their staff) but only a few access them regularly (according to TMS log data).</li> <li>- Dashboards were developed but TMS log data show that they are rarely used.</li> <li>- No KPIs by customer, by market, or by channel are available.</li> <li>- Only plain reports (listing) are used. No analysis.</li> </ul>

**Table 38. The Functionality Misfit (Case 1)**

Data misfit did not directly influence TMS use by marketing staff and management, even though users complained about data update timeliness and legacy system inconsistencies. However, it did influence TMS use by higher levels of management, because the TMS only contained marketing data (about retailers) and no sales data. The company was selling directly to retailers in Romania while the business model was indirect in almost all other countries.

Therefore, HQ had not planned to include sales data in the TMS for Romania. No sales data meant no usage by most managers (directors and above), which then meant no visibility at the company level, which finally meant no push from top management. Again, this illustrates a cascading effect.

Misfit type	Examples from case study
Data	<ul style="list-style-type: none"> <li>- Data coverage: only marketing data no sales data</li> <li>- Frequency of data updates: twice a week instead of daily loads</li> <li>- Inconsistencies with legacy systems.</li> <li>- Granularity too low, not good for top levels of management who need consolidated data (not available through TMS reports).</li> </ul>

**Table 39. The Data Misfit (Case 1)**

### **5.1.2. The Evolution of the Seven Misfit Types**

After finding seven types of misfit explaining most of the usage behaviours noticed during the study, the researcher will now analyze their evolution between the two interview rounds. Strong and Volkoff (2010, p.733) note that “a misfit is not a stable object’ and that “it changes over time, whether through changes in the ES, or some aspect of the organisation, or a reframing of the issues.” The researcher will now take the example of three individual users with three different usage behaviours to illustrate the size and evolution of those misfits: the operational planner (Table 40), the trade marketing manager (Table 41) and an LCA (Table 42). Those three TMS users reached different post-adoption phases (Table 10). In order to estimate the gap between expectations and actual performance, the researcher classified the gaps into four categories: large, medium, small and none. A large misfit means that the TMS functionalities and/or deliverables do not at all match users’ requirements and therefore make TMS use almost impossible/irrelevant. A medium misfit corresponds to a gap that impacts (reduces) usage but does not prevent TMS use. A small misfit means that users notice a gap but did not change their usage, while none means that no misfit was mentioned.

It is not surprising that the operational planner (Table 40) shows the smallest misfit in almost all seven types. His participation in the project team, his increased job scope due to the introduction of the TMS and the leadership role








of his manager (the local project manager) are factors explaining the good fit between his needs and the project deliverables. Only the data misfit (medium) seems to impact his usage, as he must regularly cross-check TMS data with similar data stored in other legacy systems in order to spot and correct inconsistencies. This slows him down in his day-to-day tasks but does not prevent him from using the TMS. Reduction of the size of the skill set, commitment and functionality misfits have occurred between 2008 and 2009 (improvement). The size of the data, communication and supervision misfits are stable, although the size of the data misfit (medium) is still an issue for this user). The only deteriorating (but still negligible) misfit is user support from HQ (from none to small), and is due to a lack of post-deployment dedicated resources.

	Misfit	2008 Gap	2009 Gap	Trend	Comments about the Evolution
1	Communication	None	None		Participated in the TMS implementation (involved since September 2007). As he was part of the project team, he was regularly informed by the local and HQ project teams about the objectives and benefits of the project for his company, his department and himself. Always close to the decision makers, continuously updated on project progress.
2	Supervision	None	None		His supervisor was the local TMS project manager. From the very beginning and all along our study, he got all needed support and training from his direct supervisor. No need to control him, he showed self-motivation due to an increased visibility of his position after the TMS introduction.
3	User support	None	Small		As part of the project team, direct and privileged access to local and HQ support teams when faced with business or technical problems. Quick response and resolution time in 2008, but pace has significantly slowed down in 2009 (after the introduction of Analytics) due to lack of dedicated resources at HQ.
4	Skill sets	Small	None		IT literate person, with extensive experience in information systems. Trained extensively with direct contact to central team to overcome initial technical and process related issues, especially with Analytics. Issue not mentioned during the November 2009 interview.
5	Commitment	Small	None		In general interest in new IT tools. Wanted to see realized benefits before being 100% convinced. Now committed and convinced about the TMS benefits for him (improved job efficiency, scope and visibility) and his company (better planning of field staff activities). Expected benefits materialized into concrete benefits for him.
6	Functionalities	Medium	Small		In 2008, initially weak reporting capabilities (Analytics) available to users: very few reports, slow response time. A bit disappointed as it was considered as a key functionality for himself and field managers. He benefited from more advanced reporting and activity planning functionalities introduced early 2009. Also faster and more stable platform during 2009. Overall, much better functionalities provided by Siebel compared to the legacy system. However, route planning capabilities must be further developed to meet his needs (the legacy tool was still better). Release planning (2 or 3 per year) is not satisfactory to meet the evolving needs of a dynamic local market.
7	Data	Medium	Medium		Data quality has always been an issue and still is after 19 months: inconsistencies with legacy systems, infrequent updates, unclear field definitions, dealers' contracts initially not in Siebel, etc. More data sets are now available through Siebel but the data quality in source systems was not very good. A problem affecting TMS usage (lack of trust from management).

**Table 40. Misfit Evolution: Operational Planner (Case 1)**






The trade marketing manager (Table 41) does not show any significant (large) gap impacting his use or a worrying evolution of the seven gaps between 2008 and 2009. However, the evolution is different depending on the misfit type. There is an improvement in the functionality and data misfits due to a good job

by the project team and a slight deterioration in the communication (no news and guidance from top management) and skill sets (CRM business skills) misfits. Again, this deterioration is only slowing his progression towards more advanced and benefits-generating phases, but did not cause him to stop using the tool.



	Misfit	2008 Gap	2009 Gap	Trend	Comments about the evolution
1	Communication	None	Small		The lack of communication about the overall TMS objectives and the realized benefits was not mentioned during the first round of interview (2008) as this TMM mostly focused on learning basic functionalities and supporting his team. However, a communication misfit was noticed in 2009 as highlighted by this TMM's comment: <i>"I feel that since this project has been rolled out, the communication of our management has almost stopped; no more news about the objectives and the achieved benefits. The project manager has been moved to another job; users are left a bit alone with Siebel, there is no local actor leading the initiative now ... Siebel is like in an automatic piloting mode and not anymore in a progress mode ...it is business as usual, I thought there would be a continuing communication ... it is a pity after all the effort and money we put in ..."</i>
2	Supervision	Small	Small		His manager (area manager) as well as the director of his manager have been asking for monthly marketing figures since the launch of the TMS (e.g. number of contracts signed, trade segmentation criteria, merchandising activities, POS activities, POS materials at dealers'). He has to make sure that his eight TMAs enter data in the TMS in order to report correct figures to his management. No coaching or support from his manager, he just asks for monthly numbers.
3	User support	None	None		The support from the project team has always been considered as "very good", whether it is for him (reports) or his staff (data entry processes).
4	Skill sets	Small	Medium		The required skill set evolved from IT literacy (how to use the TMS functionalities) to business management (how to improve the efficiency of his team through the TMS and its analysis capabilities). The initial misfit was small (due to an efficient support team) but became larger as this TMM admitted that he did not have the proper skill sets and that no training was available to managers.
5	Commitment	Small	Small		The TMS helped him better control his team. He stated that <i>"as long as the benefits (more control) outweigh the disadvantages (not always very easy to use, no regular data updates), I will be pushing the tool to my staff."</i> He is committed only because his manager puts pressure on him to supply numbers.
6	Functionalities	Medium	Small		<i>"I now have more accurate and timely reports. Siebel gives me more visibility. I personally feel more secure and less worried than with the previous tool."</i> He only uses reports to track the activities of his staff ("99% of my use of the TMS"). He was a bit frustrated during the launch of the TMS as he had only a couple of reports available. Now that more reports are available, he has a more positive attitude towards the TMS.
7	Data	Medium	Small		More data are being consolidated into Siebel and this facilitates his controlling activities. There still exist issues such as lack of data timeliness, report performance, and limited access to data by his staff but they do not seem to impact his usage. Not yet perfect but improving.

**Table 41. Misfit Evolution: Trade Marketing Manager (Case 1)**

The LCA (Table 42) exhibits the largest gaps, medium and large for all seven types. He also shows a certain stability between 2008 and 2009 as nothing was done (from top management, the project team or his supervisor) to reduce the misfits. The researcher's perception is that the LCA's business unit was not considered by the project team as critical for overall project success and was therefore not a priority in the TMS roll-out plan. The TMS does not correspond to the needs of the leisure channel department and this is reflected in all seven misfit types. A relationship between the size of the gaps and the LCA's usage behaviour is clear: he is still situated in the adaptation phase after almost two years.

	Misfit	2008 Gap	2009 Gap	Trend	Comments about the Evolution
1	Communication	Large	Medium		<i>"I have no clue why Siebel was introduced and my manager does not know either ... I did not participate in the initial training as I was hired just after. During the one-to-one coaching session with my manager, we could not figure out the benefits of Siebel."</i> 19 months later, the only objective this LCA could articulate was the following: <i>"control is the ultimate goal of Siebel. It is big brother"</i>
2	Supervision	Medium	Medium		<i>"I use the tool because my manager wants to get some basic numbers but I do not need it."</i> There is some pressure to use the tool (part of his evaluation is based on the use of the tool) but it looks like more an act of "good corporate citizen" toward his manager than a willingness to incorporate the tool into the day-day activities. No support is provided by his manager.
3	User support	Medium	Medium		No support provided from his manager, only occasional help from the project team but the leisure channel business has never been the priority of the project team (as per the project manager's comments).
4	Skill sets	Small	Medium		Even without any formal training this LCA was able to use the basic functionalities of the tool after a painful trial and error period. Beyond this adaptation period, and similarly to the TMM, his business skills (e.g. analysis and account management) seemed to be not sufficient (as per project manager) to fully exploit the TMS.
5	Commitment	Large	Large		<i>"I could do my job without Siebel. I have only 16 customers. I used to do it with only my diary. But my manager wants me to enter data such as POS materials, inventory levels, visited customers, and questionnaires."</i> Commitment from this LCA (and his manager) has always been low as he was never told about the added value of the new TMS. Furthermore, the TMS was mainly introduced for the Trade Marketing business, not for his business unit.



6	Functionalities	Large	Large		Siebel is mostly a tool to improve data collection (inventory levels, merchandising materials, etc.) and reporting for the trade marketing department. Its functionalities (in 2008 and 2009) are not adapted to the leisure channel staff whose main activity is to manage major accounts. For example they would need to record their onsite activities in Siebel (not only visits and inventory level but also their correspondence such as emails or phone calls with their customers, as well as any type of documents) but Siebel does not have those functionalities. Only marginally improving.
7	Data	Large	Medium		At introduction many important data were missing such as dealers' contracts, stock levels, and sales data. It made the tool a bit useless for this LCA. Lately some of those data were loaded into Siebel. However sales data is still missing, as the work of the LCA is mostly about account management, they absolutely need sales data for each of their customers. After 19 months, data quality improved but still remained unsatisfactory.

**Table 42. Misfit Evolution: Leisure Channel Associate (Case 1)**

A comparison of the misfit evolution between 2008 and 2009 for all three users (Table 43) reveals that half the misfits (10 out of 21) evolved over time. Of those 10, there is no positive or negative trend and six show a diminishing gap while four show an increasing gap.

	Misfit	Gap Evolution Op. Planner (gap after 19 months)	Gap Evolution TMM (gap after 19 months)	Gap Evolution LCA (gap after 19 months)
		HQ Staff	Field Staff	Field Staff
1	Communication	Stable (no gap)	Increased (small)	Stable (large)
2	Supervision	Stable (no gap)	Stable (small)	Stable (medium)
3	User support	Increased (small)	Stable (small)	Stable (medium)
4	Skill sets	Decreased (none)	Increased (medium)	Increased (medium)
5	Commitment	Decreased (none)	Stable (small)	Stable (large)

6	Functionalities	Decreased <i>(small)</i>	Decreased <i>(small)</i>	Stable <i>(large)</i>
7	Data	Stable <i>(medium)</i>	Decreased <i>(small)</i>	Decreased <i>(medium)</i>

**Table 43. Misfit Evolution: Headquarters versus Field Staff (Case 1)**

Comparing the three users reveals two groups: the operational planner (the local HQ staff) versus the trade marketing manager and the LCA (the field people). The trade marketing manager and the LCA show a similar evolution in five of the seven types of misfits, while there is a similar evolution in only two misfits between the operational planner and the TMM and between the operational planner and the LCA. To a lesser extent, a difference also exists in the number of narrowing gaps, three for the operational planner, two for the TMM and only one for the LCA. The misfit seems to widen between the HQ and the field people for the following reasons. Firstly, the company introduced this tool not only to improve field and HQ staff efficiency, but also to allow HQ to better plan and control field staff activities. Therefore, the project team emphasized trade segmentation, merchandising program development, and field activity planning (tasks performed by HQ people). The TMS data entry capabilities (used by field people) were not much better than the ones provided by the previous tool, and reporting capabilities (helpful for field staff planning customer visits) were clearly missing. As a result there is a clear imbalance in deliverables between the HQ and the field staff. Secondly, the operational planner was very close to the project team (his boss was the local project manager) and therefore could more easily access resources for training or change requests affecting his personal use, inevitably leading to a reduction in his misfits.

Evaluating each misfit type across the three users reveals that the data misfit remains significant after 19 months. It also shows that functionalities are improving (except for the LCA), that the supervisory and commitment gaps are stable, that communication from top management seems to be an issue only for the manager and that the skill sets gap might become an issue for field people when/if the project team decides to move towards more advanced functionalities and business processes, such as account management. The

researcher already highlighted a lack of account management/business analysis skills in the field and a lack of appropriate training to compensate for this weakness. This also contributes to the widening gap between HQ and field people. The TMS is more of a planning and controlling tool than a field tool. This is clearly demonstrated by the size and evolution of the seven misfit types.

The researcher also looked at medium and large misfit types for each individual user, and mapped them against the usage phase the user was in at each of the two rounds (Table 44). The objective was to see if certain misfit types would prevail at certain post-adoption use phases. Overall, the researcher did not identify any clear patterns across the three users. Misfit types seem to be more user (department) specific than company or usage phase specific and it seems to depend on the user business unit and position. The very different individual trajectories of the three users in the three different units show that usage should be examined at least at the department level. However, the researcher noted two patterns that would need to be confirmed during the next case studies. Firstly, more consistency seems to exist during early stages of use, for example, functionality and data misfits are present in 2008 for all users (adaptation/early exploitation phases). Users clearly required 'technical' adjustments (e.g. data inconsistencies and missing reporting capabilities) just after the TMS launch. They were partially corrected but still remained in 2009 (data issues for the operations planner and the LCA, and functionality issues for the LCA). Secondly, business skills have become an issue in 2009 for field people (TMM and LCA), indicating that utilization issues are moving from mastering the tool and its processes to using business (CRM) skills to fulfill the TMS's ultimate objective, which was, increased company performance (exploitation/benefits realization phases).

User	Usage phase June 2008	Misfit type June 2008	Usage phase Nov 2009	Misfit type Nov 2009
Op. Planner	<b>Exploitation</b>	Functionality Data	<b>Benefits realization</b>	Data
TMM	<b>Adaptation</b>	Functionality Data	<b>Exploitation</b>	Skill sets
LCA	<b>Adaptation</b>	Communication Supervision User support Commitment Functionality Data	<b>Adaptation</b>	Communication Supervision User support Skill set Commitment Functionality Data

**Table 44. Misfit Types (Medium and Large) and Usage Phases (Case 1)**

The above findings confirm previous ERP studies that have revealed that the critical issues in different phases of ERP implementation are likely to be different (Besson and Rowe, 2001; Stefanou, 2001; Rajagopal, 2002; Somers and Nelson, 2004).

### **5.1.3. Interactions among Misfit Types**

The first case study revealed that certain types of misfit did influence each other and that some cascading effects occurred among misfits (Wei, wand and Ju, 2005). This finding is illustrated in Figure 6, with missing reporting functionalities (misfit 1) negatively impacted the supervisory activities of managers (misfit 2). Users (mostly managers) initially found a workaround with Excel but could not be appropriately supported (misfit 3). Then, the local IT team implemented a solution (external reporting tool), creating a data synchronization issue (misfit 4). Skill set (misfit 5) and commitment (misfit 6) were factors influencing manager behaviour during this episode, as they helped some users overcome or reduce some of those misfits (misfits 2, 3 and 4). For example, managers with good Excel skills did not rely on the local IT team and therefore did not need the external reporting tool, which caused the last misfit (data synchronization).

The next two cases should hopefully provide additional opportunities to more carefully examine the interactions and influences between misfit types.

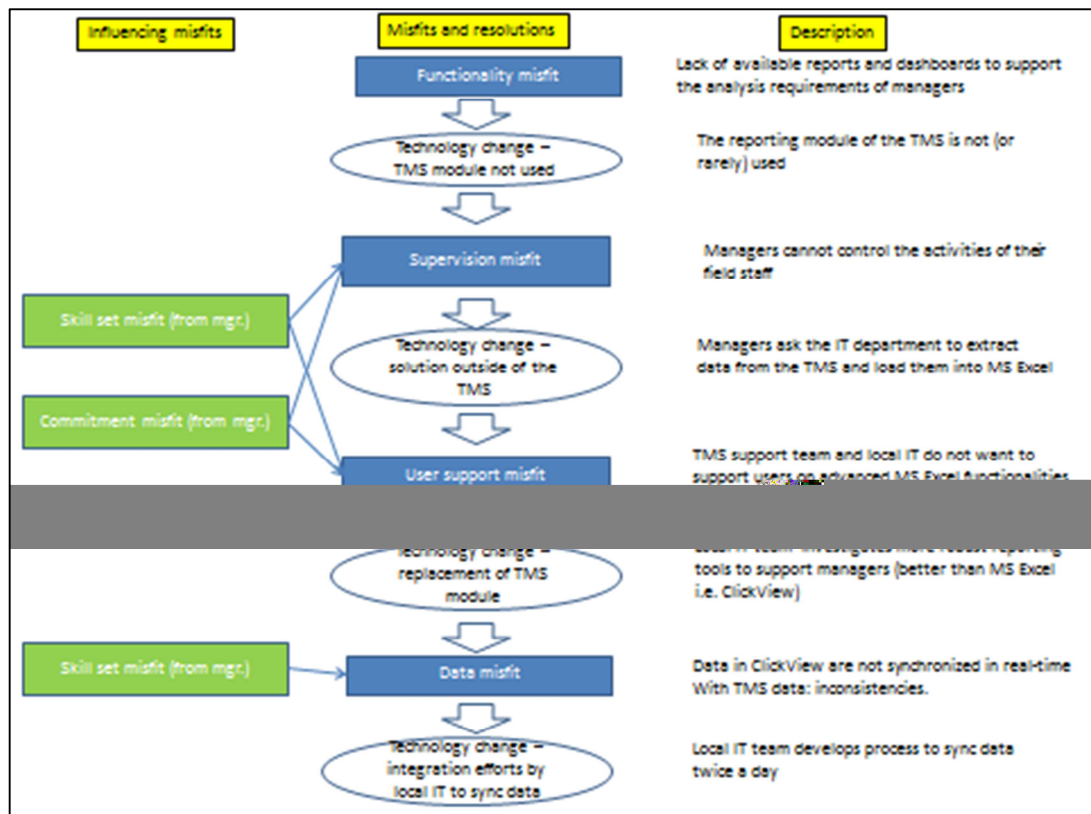


Figure 6. Misfit Types: Cascading Effects (Case 1)

#### 5.1.4. Misfit: A Literature Review

The researcher has identified misfits (gaps) that go beyond the ones described in the above texts. Out of seven gaps, five are usually found in the organisation-ES misfit/misalignment literature (data, functionality, skill sets, user support and to a lesser extent supervision), and two (communication from top management, and commitment of users) have been only partially identified. User commitment was extremely important in the TMS environment, where staff use of basic functionalities was mandatory but no plan had been set for the use of more

advanced analysis functionalities, consequently giving more freedom to each individual user. This study reveals that those two misfits have a significant impact on utilization and performance. They did not clearly appear during the initial post-adoption phase (adaptation) but seemed to make a difference during phases two and three.

Research on the factors influencing IS usage and their variation over time is fairly scarce for CRM systems. Longitudinal studies have been conducted on SFA tools (Jones, Sundaram and Chin, 2002) showing factors influencing intention to use – but not actual usage – during pre and post-implementation periods, whereas others have concentrated on post-adoption variations in usage and value (Zhu and Kraemer, 2005), or more specifically on the technological adaptation following implementation (Tyre and Orlikowski, 1994). More generally, Bhattacharjee and Premkumar (2004) examined variations in the attitudes toward IT usage and proposed a temporal model of belief and attitude change, which is similar to what this thesis attempts to demonstrate, albeit with a focus on IT usage and not on belief and attitude.

Some of the findings related to factors in this research confirm previous research on IS use. Firstly, it supports the work done by Karahanna, Straub and Chervany (1999) on post-adoption beliefs by showing that usefulness and image enhancements are factors influencing post-adoption behaviour while the “ease of use” factor disappears over time. Secondly, it corroborates the findings by Angst and Agarwal (2009) who demonstrate that persuasion and argumentation (or the lack of, as shown in the first case study) can change users’ attitude towards an IS. The communication and argumentation conducted during the initial training sessions and later throughout the 19-month period of the study were either inexistent or poorly managed by the company’s management and project team, as highlighted by numerous interviewees both in 2008 and 2009, therefore leaving most users without any guidance beside the basic training and support on “how to use the TMS.” Thirdly, because the TMS is deployed and maintained centrally for all European countries, there was little room for the local market to make drastic adaptations, therefore impacting the adoption and usage of the tool, a finding already highlighted by Barki, Titah and Boffo (2007).

### **5.1.5. Contribution to the Research Question**

The initial TMS case study brings four main contributions to the research questions.

Firstly, it proposes a post-adoption usage process composed of three phases (adaptation, exploitation and benefits' realization), and seven sub-phases (training assimilation, basic functionality discovery, basic functionality appropriation, advanced functionality discovery and appropriation, individual productivity enhancement, individual job objectives' achievement and company business objectives' achievement) along which we can position users.

Secondly, a core category (misfit) seems to explain many of the identified users' behaviours and progressions along the post-adoption usage process.

Thirdly, misfit types and severity evolved through time and the types of misfits as well as their evolution was more user (or department) specific than companywide. However, some misfit types seemed to be associated with phases. For example, data and functionality misfits occurred in the early phases (adaptation/exploitation), whereas skill sets misfits appeared in later phases (exploitation/benefits realization). This pattern showed that misfits were moving through time from product/process-related ones to individual/organisational ones such as skill sets or commitment.

Fourthly, this research shows that misfit types can influence each other and that a misfit can trigger a series of other misfits.

## **5.2. Findings of the Second Case Study.**

### **5.2.1. Two New Misfit Types: Strategy and Organisation**

The objective for this second case study was twofold. Firstly, the researcher aimed at confirming that the notion of misfit was a core variable explaining the usage differences in the studied population. The researcher found again that users and their managers were constantly comparing their needs (and

expectations) against the new processes and tool functionalities delivered by the project team. The only major difference between the first and second case studies was the increased role of department managers, which the researcher attributed to two factors: a lack of companywide strategy and guidelines that allowed each department manager to decide whether to mandate system use, and the profile of users who were mostly back-office, administrative staff and had far less autonomy than the sales and marketing staff of the previous case. Secondly, the researcher aimed at confirming the misfit types discovered during the initial research. He added two more types, strategy misfit and organisation misfit, to the seven types which appeared in both case studies (Table 45).



Misfit type	New	Explanation
Strategy	Y	Strategy misfit occurs when the executive team does not set up a companywide CRM strategy backed up by agreed business objectives and followed by an actionable implementation plan, leaving field managers without any clear guidance about what CRM means for their departments and their company.
Organisation	Y	Organisation misfit occurs when the organisation is not ready to successfully implement a CRM initiative because its management and staff lack CRM maturity and / or because organisational silos prevent the diffusion of companywide CRM principles.
Communication	N	Communication misfit occurs when top management and department managers do not communicate the objectives and the realized benefits of the CRM initiative to their staff, leaving the user population without any information about the accomplished progress and the challenges ahead.
Commitment	N	Commitment misfit occurs when individual users and / or their managers do not believe that the CRM initiative will generate benefits for them, their departments and their company. This lack of commitment negatively impacts the diffusion of the CRM principles and technology.
Supervision	N	Supervision misfit occurs when the supervisor does not support, train, control and reward / sanction his / her staff in a way to promote the use of the CRM system.
User support	N	User support misfit occurs when the support required to fully exploit the CRM system is not delivered to the user population by the project team, the direct supervisor or colleagues, which slows down and sometime stops the usage of the system.
Skill sets	N	Skill set misfit occurs when the business and IT capabilities required to exploit the CRM system are not met by individual users.
Functionality	N	Functionality misfit occurs when users are less efficient when they use the new CRM system, either because it lacks needed functionalities or because it is more complex to use.
Data	N	Data misfit occurs when data stored in the CRM system are inaccurate (i.e. duplicates), do not cover users' needs (i.e. missing customer information), lack timely updates (i.e. delayed input of customer profile updates) or are hardly accessible (i.e. only from the office).

**Table 45. The Nine Misfit Types (Case 2)**

This section will describe the two new misfit types, which seemed to have a common root cause, the laissez-faire attitude of top management. The attempt to identify a root cause for the two new misfit types was triggered by the striking difference in management style between the two organisations studied. One a manufacturing firm with a strong hierarchical culture, a top-down approach and a strict measurement system inherited from decades of manufacturing and field (sales and marketing) operations (case one). The other an educational institution giving department heads autonomy in decision and action (case two). Laissez-faire leadership describes leaders who avoid influencing their subordinates and shirk supervisory duties (Bass, 1973). Bass (1990) finds that laissez-faire leadership results in low level of organisation, efficiency,

productivity, morale and satisfaction. Similar findings are found by Sorenson (2000) on family businesses. The definition provided by Bass (1973) corresponds to the situation in this educational institution. Leaders did not provide a CRM vision, mission and action plan or establish boundary conditions. Decisions were made at the project and department level. Even though some of the project team members and department managers were motivated and competent, the CRM initiative soon became an uncoordinated set of individual departmental initiatives. The interviews revealed the consequences mentioned by Bass (low level of productivity, morale and satisfaction), except in one department (admissions and recruitment) where the management team overcame this difficulty by setting its own departmental vision, mission and action plan. Such an environment was fertile ground for the two new misfits.

### **The Strategy Misfit**

*A strategy misfit* (Table 46) arose during the interviews and partly explained why two departments (fundraising and research) that initially used the CRM system slowly regressed and finally stopped using the system. All departments were expecting clear guidelines from top management, but they soon realized that no top-down directions would come and that they were on their own. What made a difference was the business skills and CRM experience of the department manager; it was up to him/her to create a CRM agenda to reap the benefits of the newly-launched initiative. This did not occur in the two departments where the managers did not (or could not) see the CRM system advantages for their units. Other departments such as recruitment and admissions regretted the lack of companywide CRM strategy but used this opportunity to reengineer and automate some of their sales and marketing processes and introduced reporting and analysis capabilities to improve decision-making.

Misfit Type	Examples from case study
Strategy	<ul style="list-style-type: none"> <li>- No global CRM strategy document presented by the project team to department managers.</li> <li>- Clearly stated project objectives were process standardization, process automation, and data centralization.</li> <li>- IT driven project: “the cart before the horse”. Some departments did not know why they should use the CRM system, and could not relate the introduction of Salesforce.com to the strategy of their company and their day-day operations.</li> <li>- “The more they use it, the more they will see the benefits”. Not surprisingly, most managers expected first the see the benefits of the tool and its contribution to a global CRM strategy before using it.</li> </ul>

**Table 46. The Strategy Misfit (Case 2)**

The researcher already mentioned “the cart before the horse” issue, and highlighted its impact on the CRM system roll-out. The IT director initiated the CRM project; however, he was promoted to director of operations several months after CRM launch. His objective was to introduce a CRM tool in order to standardize all current CRM processes, centralize customer (student and partner) data and break the silos.

“Tool and processes should go hand in hand in order to avoid a disconnection between business and technology. We (the IT department) already spotted uncoordinated CRM efforts and little kingdoms here and there ... this is why I believe that having somebody outside of those kingdoms to lead the CRM project was a good idea.”

Taking an IT/process-centric view and giving the lead to the IT director was certainly a major mistake, but the IT director strongly believed in his approach:

“Maybe we should have first started with a CRM strategic plan ... but we have no time and it might be difficult to get everybody around the table... anyway the more they will use the product the more they will see the benefits.”

The tool was rapidly deployed, automating some core processes (e.g. recruitment–admissions–enrolment) and centralizing a departmental customer database, but it missed the point: department managers expected a companywide CRM strategy to unite all individual sales and marketing initiatives and, more importantly, they expected the executive committee (represented by the business sponsor) to “twist the arms” of some individualistic department managers.

"I (director of recruitment and admissions) thought that managers would be forced to collaborate and enter their contacts and activities into Salesforce.com. For example gathering information about a student during his whole life, from his initial application, to graduation, and even after as an alumnus, etc. ... - that's what we call the student passport - would have been an ambitious objective. Ok, it would have required a collaboration of all departments but it is a valid business goal. I know it is not an easy task with certain of my colleagues ... but the CRM project was a good opportunity to put things on the table."

The IT director did not have the intent or the authority to accomplish this task. CRM is all about improving customer relations, increasing sales and marketing efficiency, developing and providing new products and services tailored to customers and markets. Such vision was missing, and the project ended up in a series of IT-based process improvement initiatives, a far cry from the business expectations of department managers. The Project Management Office (PMO) manager summarized this frustration in the following comment:

"CRM is a business project but the sponsor did not have the business experience to tackle strategic issues. Now we have a centralized database ... with lots of issues ... and some nice tools to send emailings ... so what? We failed again. Discouraging. The executive committee was never involved. It is another typical IT project, a lot of money was spent on the tool but the business benefits for our school haven't materialized."

This lack of business vision clearly constituted the "original sin" of this project.

### **The Organisation Misfit**

The second new misfit was related to the *organisational structure and maturity* of the school (Table 47). Silo departments were another consequence of the school's laissez-faire policy and its resulting lack of control and measurement of departmental activities. Desisto (2010) states that a departmental CRM project cannot be successful, as it does not reap the benefits provided by a 360-degree view of the customer. This 360-degree view can only be achieved through the cooperation of all departments. Unfortunately, the researcher's analysis revealed a lack of intra-department collaboration, the pursuit of department specific objectives, and even competition between department heads. The lack of cooperation among departments was mentioned in almost all interviews as a brake upon usage. "*Why should I contribute to the central database if others do not play the game and if nobody at the top forces them to do so?*" was a frequent remark. The sharing and use of information (contacts, activities)

coming from all customer-facing departments is a key ingredient of a successful CRM project: unfortunately, it did not materialize for this project.

The other weakness was the lack of CRM maturity and more generally of business management experience among most department heads. The researcher asked each interviewee to provide with a definition of CRM. Some of the managers' answers are listed below:

"CRM is ... a tool like Salesforce.com or Microsoft CRM, our previous tool."

"CRM is about ... centralizing data into a common database so that all departments can share the same information."

"CRM is about ...having a better knowledge of our students."

"CRM is ... a way to automate my processes."

"CRM is ... something we do not need at the school."

"CRM is ... a strategy to improve our relationships with all our students and partners through knowledge and collaboration."

"CRM? ... I have no clue! Tell me!"

The heterogeneity of definitions is a direct consequence of the lack of a global CRM strategy. It also reflects a discrepancy of knowledge within the management community. The organisation as an entity was not ready to implement such an ambitious project. Educating managers about CRM, setting up a companywide strategy and then cascading it into departmental objectives would have been a wise first step, but the IT-centric view of this project did not account for that.

Misfit Type	Examples from case study
Organisation	<ul style="list-style-type: none"> <li>- Each individual department tried to figure out what CRM could mean for him / her. No CRM business strategy skills within the project team.</li> <li>- Only the recruitment / admissions and marketing department managers had a good understanding of what CRM meant.</li> <li>- CRM often associated with the implementation of an information system and not a business strategy.</li> <li>- No control by the project team about the contribution of individual departments to the CRM system: data quality and quantity, sharing of activities, etc. Departments were left on their own.</li> <li>- During the initial round of interviews, the fund raising manager wondered about the usefulness of a CRM initiative for him. His doubts clearly revealed a lack of experience and skills of some of the managers.</li> </ul>










**Table 47. The Organisation Misfit (Case 2)**

### ***5.2.2. The Evolution of the Nine Misfit Types***

The evolution of users along the post-adoption usage phases, of factors influencing usage, and of the nine misfit types is a main focus of this research. To be consistent with the first case study, the researcher conducted the same three analyses: evolution of the nine misfit types for three selected users (Tables 48, 49 and 50), the comparison of the evolution of each misfit type among the selected users (Table 51), and the misfit types identified in the initial and final rounds of interviews (Table 52). The same definitions of large, medium, small and none were used to assess misfit size. The researcher identified three users from three different departments showing various levels of usage: an admission officer, the fundraising assistant and the internship officer. They seem to cover the different user types previously identified.

#### **The Admissions Officer**

The experienced admissions and recruiting management team has clearly compensated for the lack of a company strategy, CRM maturity and companywide objectives by setting up its own departmental CRM strategy, objectives and communication plan and ensuring that they were shared by all department staff. Staff members sometimes perceived their managers as authoritarian, but this did not impact usage. The three factors impacting usage were the diminishing resources allocated to user support, the key functionalities (related to the recruitment process) not properly working during the first month, and recurring data quality issues (e.g. missing fields such as local school coordinators). Functionality and data issues were gradually resolved but the lack of project resources negatively impacted the development and use of more advanced functionalities, such as event management, in the middle to long term.










	Misfit type	R1	R2	R3	R4	R5	R6	R7	Trend	Comments
1	Strategy	N	N	N	N	N	N	N		Clear departmental CRM strategy. No impact due to a lack of global CRM strategy. No impact on individual usage.
2	Organisation	S	S	S	S	S	S	S		Well organised department led by experienced manager. Some criticisms from this person who participated in previous CRM projects about the school's lack of CRM culture. No impact on individual usage.
3	Communication	N	N	N	S	S	S	S		Informative weekly meeting to discuss CRM related issues. Some criticisms about the future CRM plans such as the event management tool (lack of information sharing). No impact on individual usage.
4	Commitment	N	N	N	N	N	N	N		Team (staff and manager) dedicated to their work and success of the department. No impact on individual usage.
5	Supervision	M	M	M	S	S	S	S		Some initial tensions between an authoritative manager and the admissions officer leading to resistance "I do not use this functionality because it is not working 100%. Criticisms disappeared over time.
6	User support	S	S	S	M	M	M	M		Diminishing resources to solve bugs and improve functionalities: a brake upon usage of advanced functionalities.
7	Skill sets	S	S	S	S	S	S	S		Experienced admissions officer (with processes and tool). Some criticisms about the experience of the manager in change and people management. No impact on usage.
8	Functionality	L	M	M	S	S	S	S		Processes wrongly implemented in CRM tool; tool could not be used for some key processes. Rapidly corrected but support team always in a reactive mode.
9	Data	M	M	S	N	N	N	N		Some initial data quality issues such as missing fields in Salesforce.com. Department not dependent on others for data.

**Table 48. Misfit Evolution: Admissions Officer (Case 2)**

## **Fundraising Assistant**

The manager of this user did not expect CRM system launch to improve his activities. Although the manager tried to be a “good citizen,” he rapidly stopped using the tool and returned to his previous tools such as Microsoft (MS) Excel and Outlook. He left his assistant totally alone. This user expected some improvement (e.g. centralized data sets), and showed some initial motivation; however, she later enumerated the problems: no strategy, prevailing silo mentality, no project communication, no support from manager, and deteriorating data quality. All this gradually undermined her motivation (*“why should I use the system if nobody cares?”*), and she stopped using the tool after about ten months. The increase (deterioration) of five misfit gaps (strategy, organisation, communication, commitment, and data) shown in Table 49 clearly supports this user’s evolution.











	Misfit type	R1	R2	R3	R4	R5	R6	R7	Trend	Comments
1	Strategy	S	S	M	M	M	L	L		The lack of a common CRM vision and more importantly the lack of “retaliation” for departments not contributing to the CRM database were a brake upon usage. No involvement from her manager, no departmental strategy created. Alone.
2	Organisation	S	S	M	M	M	L	L		After realizing that data and collaboration issues were not solved, user expected decisions by top management but they never came. Demotivating.
3	Communication	S	S	M	M	M	L	L		A direct consequence of strategy and organisation misfits. No updates from project team and direct manager. All three misfits were rated as high and clearly demotivated this user.
4	Commitment	N	S	S	M	M	L	L		Initial strong motivation as need of data centralization and sharing. The prevailing silo mentality and lack of data sharing gradually demotivated this user who stopped entering data. Some lag effect compared to the above 3 misfits.
5	Supervision	M	M	M	M	M	M	M		No guidelines and control from manager. No time allocated by manager for those new activities. User not supported in her initial efforts of entering and cleaning information.
6	User support	S	S	S	S	S	S	S		No need for user support as only basic functionalities were used. No impact on usage.
7	Skill sets	N	N	N	N	N	N	N		Basic use of Salesforce.com. Users had the skills.
8	Functionality	S	S	S	S	S	S	S		Only basic functionalities used: data and activity entry, standard reports. The only complaint was about contact merge functionalities (could not merge several contacts at once) but no impact on usage.
9	Data	M	M	M	M	L	L	L		Quality of data never improved as originally expected. User returned to previous tools (MS Excel and Outlook) to store information.

**Table 49. Misfit Evolution: Fund Raising Assistant (Case 2)**

## The Internship Officer

This user illustrates the fact that individual commitment and expertise can compensate for a lack of company strategy and direct supervisor involvement. This user was part of the project team and acted as a super user within her department. Her commitment to the project drove her to overcome most of the other difficulties that blocked other users (e.g. the fundraising assistant). The departmental CRM project was well managed and generated benefits at the user and customer level. The researcher noticed an increase in some misfit gaps (i.e. commitment, user support, and functionalities) but it did not impact her usage.

	Misfit type	R1	R2	R3	R4	R5	R6	R7	Trend	Comments
1	Strategy	N	N	N	N	N	N	N		This department had a clear CRM strategy: automating job posting and application. Not impacted by a lack of overall company strategy.
2	Organisation	N	N	N	N	N	N	N		Same remark as above. This key user had a good knowledge of her processes and showed CRM maturity. Independent.
3	Communication	N	N	N	N	N	N	N		User worked out departmental objectives and action plan with her manager and the project team. Regular follow up and corrective actions.
4	Commitment	N	N	N	N	N	S	S		User was part of the project team. Very motivated and knowledgeable. Some "frustration" due to diminishing support resources. No impact on usage.
5	Supervision	S	S	S	S	S	S	S		Not regularly supported by her manager beyond the launch of the CRM system but showed self-motivation and high commitment all along our study.
6	User support	S	S	S	M	M	M	M		Some frustration. No impact on the use of current functionalities but a slowdown of progression towards more added value functionalities: self-service by students and employers.
7	Skill sets	N	N	N	N	N	N	N		IT literate users, eager to learn.
8	Functionality	N	N	N	N	S	S	S		Willingness to completely automate her processes. Request currently not met by the support team due to lack of resources. Will wait. No impact on usage.
9	Data	M	M	S	S	S	S	S		Minor data quality issues. Initially annoying but no impact on usage on medium term.

**Table 50. Misfit Evolution: Internship Officer (Case 2)**

These three user experiences revealed much about the evolution of misfit types.

Firstly, throughout the seven rounds of interviews, the researcher noticed a varying but overall decreasing level of motivation among the user population, impacting usage in all but the recruitment and admissions and nursery department. Table 12 previously showed that the recruitment and admissions and nursery teams regularly progressed throughout the post-adoption phases, while some departments considerably slowed down their progression after the first six months (internship, marketing) and others clearly regressed to a point of nonuse (research and fundraising). Table 51 corroborates this initial finding. The majority of red cells prove that the situation was clearly deteriorating for fundraising (large gaps), and marginally declining for the internship department (small to medium gaps). Overall, misfit gaps did increase during the study. The only improvements (green cells showing a reduction in the misfit) occurred for the recruitment and admissions team, mostly due to the involvement and professionalism of its management and staff. This confirms the relationship between the size of the gap and usage level for each of the three users, as highlighted in the first case study.

	Misfit type	Admissions officer (gap after 13 months)	Fund raising assistant (gap after 13 months)	Internship officer (gap after 13 months)
1	Strategy	Stable (no gap)	Increased (high)	Stable (no gap)
2	Organisation	Stable (low)	Increased (high)	Stable (no gap)
3	Communication	Increased (low)	Increased (high)	Stable (no gap)
4	Commitment	Stable (no gap)	Increased (high)	Increased (low)
5	Supervision	Decreased (low)	Stable (medium)	Stable (low)
6	User support	Increased (medium)	Stable (low)	Increased (medium)
7	Skill sets	Stable (no gap)	Stable (no gap)	Stable (no gap)
8	Functionality	Decreased (low)	Stable (low)	Increased (low)
9	Data	Decreased (no gap)	Increased (high)	Decreased (low)

**Table 51. Misfit Evolution: User Comparison (Case 2)**

Secondly, commitment and skill sets from management and users (recruitment and admissions) or users only (internship) can overcome initial misconception and hurdles (strategy, organisation and communication misfits) by setting up departmental objectives and action plans. Those two skills are particularly important in a very decentralized environment where users have much leeway.

Thirdly, it is difficult to highlight any trends at the misfit/company level. The size of the misfit and its evolution seem to be user or department-specific. The researcher could not draw any conclusions, except that usage should be evaluated at department level to identify the impact of influencing factors. For example, the strategy misfit was perceived differently among our three users, and did not influence their usage in the same way.

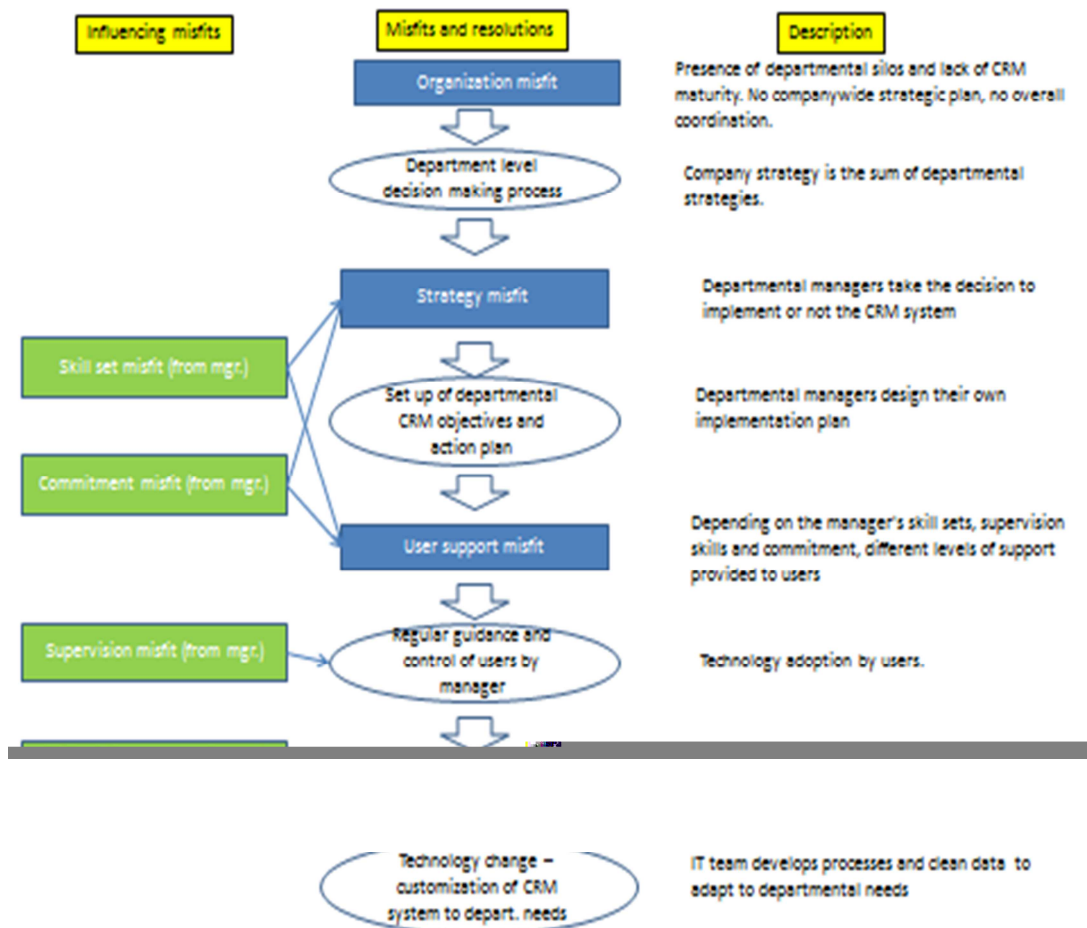
The researcher also looked for each user at the misfit types (medium and large only) encountered in the initial and final rounds, and mapped them against the user's usage phase (Table 52). Supervision, data and functionality misfits regularly appeared in the initial round of interviews as factors influencing usage, whereas (lack of) user support served as a brake upon usage in the last round. Comparing those findings with the initial case study reveals that data and functionality misfits are once again present in early phases of usage (the adaption phase) and that program management (allocation of resources after go-live) is often a brake upon usage in subsequent phases (exploitation and benefits realization). Business skills (managers and employees) clearly popped up at the end of the first study; those skills played a role from the very beginning at the school: managers' and, to a lesser extent, employees' business skills were significant driving factors from day one of the CRM initiative due to the vacuum left by top management.

User	Usage phase at round 1	Misfit types at round 1 (M & L only)	Usage phase at round 7	Misfit types at round 7 (M & L only)
Admissions officer	Adaptation	Supervision, functionality and data	Benefits realization	User support
Fund raising assistant	Adaptation	Supervision, data	No usage	Strategy, organisation, communication, commitment, supervision, and data.
Internship officer	Adaptation	Data	Exploitation	User support

**Table 52. Misfit Types (Medium and Large) and Usage Phases (Case 2)**

### ***5.2.3. Interactions among Misfit Types***

The researcher made an effort to link the different misfit types in order to see their interactions and possibly identify a root cause that could explain this rather long list of misfits found in the second case study (Figure 7).



**Figure 7. Misfit Types: Cascading Effects (Case 2, Recruitment & Admissions)**

Based on notes, QSR NVIVO coding and the analysis previously displayed, the researcher was able to identify a probable root cause i.e. the laissez-faire policy of top management. The researcher openly discussed his preliminary findings with managers and their employees to get their feedback. He made comparisons not only with other IS-related projects conducted at the school (e.g. the new intranet project) but also with non-IT business initiatives such as the program portfolio restructuring. The root cause was confirmed. The laissez-faire approach of this educational institution had two major drawbacks: a lack of organisation-wide CRM strategy and a lack of measurement and control of projects and departments. These two identified weaknesses impacted the CRM project. Firstly, the school did not put in place a measure and control mechanism at the organisation level, and very rarely at a department or individual level. KPIs were missing and very few managers performed regular performance evaluations for their staff. The CRM project was no exception, as no KPIs were defined to justify and then track the project, making it impossible

for management to assess the project's success or failure (Kim and Kim, 2009). Also because no measurement was in place, department managers did whatever they believed was good for their own department and/or for themselves. This reinforced the notion of silos, which had the following consequences: no coordinated effort was undertaken to clean and then aggregate department customer data into a single database, leading to customer record duplicates and even contradictory information. Secondly, the lack of CRM organisation-wide strategy (as well as overall business strategy) encouraged the creation of silos with their own agendas, their own customer databases and their own sales and marketing strategies. Such an unorganised, heterogeneous environment also discouraged experienced managers or promising young professionals to join or remain in the organisation (confirmed by the human resources department). This lack of management skills was reflected in the project management and manager behaviour during the usage phases (lack of staff support, coaching and more generally guidance).

#### **5.2.4. Lessons Learned**

The second case study confirmed the identification of the three phases and their seven sub-phases during the initial case study. Each user could be mapped against this usage process. However, the analysis of certain users showed that progression was not always linear and that some users stopped using the CRM system after an initial try.

The researcher discovered nine misfit types. Two were new (strategy and organisation) and were the direct consequences of the institution's laissez-faire policy. The study of the evolution of misfit types reinforced the initial findings in the sense that the evolution was department-specific and reflected the departmental environment where manager skill sets and commitment played a decisive role. This was very important in an institution with a decentralized decision-making process. Not surprisingly, data and functionality misfits did appear in the early usage phases. Tool-related issues disappeared over time and the user antecedent with technology did not play any role. User support was found to be a brake upon advanced functionality usage in later stages. User support and coaching is required after go-live as this is precisely the period when users need the most help. Unfortunately, user support diminished

after the CRM system launch, and the researcher could not find any new training sessions beside the one delivered before the system go-live. Not surprisingly, this is a key factor impacting CRM initiative success. Overall, the business skills of managers and to a lesser extent the users were a top influencing factor during all stages of the post-adoption process and not only at the end, as highlighted in the first case study. This was due to the increased role of the manager in such a decentralized environment.

### **5.3. Findings of the Third Case Study**

#### ***5.3.1. A New Misfit Type: IT/Business Alignment***

From the nine misfits types identified in the previous case study, two did not apply (user support and user skill sets) as they did not seem to have any positive or negative influence on CRM system usage of experienced sales people who had already used CRM systems. Supervision, user commitment, functionality, data, strategy, organisation and communication appeared again as influencers. However, those factors influenced individual usage to a much lesser degree than in the previous case, except for personal commitment, a misfit mainly driven in this third case by personal expected and realized benefits. The only new misfit was “IT/business alignment” (Peppard, 2001; Soh, et al., 2003) (Table 53), and was mainly due to the lack of industry (real estate) and sales (luxury property) knowledge of the CRM project team and the newly appointed sales manager who decided to implement the CRM system.











	Misfit type	New	Explanation
1	IT/Business Alignment	Y	IT/business alignment misfit occurs when the deployed CRM system functionalities do not correspond to the basic business requirements of the company/department, and therefore do not bring any added value or even worse make the work of the users, their team and their organisation less efficient.

**Table 53. IT/Business Alignment Misfit (Case 3)**

### **5.3.2. The Evolution of the Eight Misfit Types**









The researcher will now make the distinction between the sales representatives and the CRM coordinator as they show different usage behaviours.

Sales representatives quickly realized that the newly introduced CRM tool was not adapted to their business (IT/business alignment) because of a lack of functionalities and a poor prospect database which was considered as useless by all sales reps. Faced with an inadequate tool, working in an organisation characterized by a strong silo and secrecy culture, and lacking overall direction and support from their direct supervisor, sales reps rapidly (round 2) stopped considering the new CRM system as a helpful tool and kept its use at a minimum. Most relevant prospect and customer data were stored on their personal laptops. The researcher could not see any significant evolution in usage pattern after round 2 (table 54) and usage progressively declined in rounds three and four.

	Misfit type	R1	R2	R3	R4	Trend	Comments
1	IT/business alignment	S	M	L	L		After an initial trial, sales reps quickly realized that the new CRM tool did not fit their business needs (no customization done for real estate activities). Gradual discovery that it is “a useless tool”.
2	Supervision	S	S	S	S		The manager’s lack of involvement and supervision was compensated by the maturity and experience of sales reps. No significant impact on usage.
3	Commitment	N	S	M	L		Faced with an inadequate tool and a “laissez-faire” type of organisation, sales reps gradually lost faith in the CRM initiative. Great impact on usage
4	Functionality	S	M	L	L		Missing functionalities were spotted right at the beginning. Same trend as for the IT/business alignment misfit.
5	Data	M	M	M	M		The loss of data during the migration (old – new CRM system) and the poor quality of the prospect database were significant inhibitors to CRM system use. No corrective action plan and proposal.
6	Strategy	S	S	S	S		The lack of CRM strategy and objectives had no real impact on usage.
7	Organisation	N	S	M	M		Organisation silos were reflected in the CRM system, and prevented the sharing of customer and deal information. Partly compensated by oral communication among sales reps.
8	Communication	S	S	S	S		Same remark as for the supervision misfit: sales reps knew what a CRM tool could do for them, and did not need an elaborate communication of CRM objectives and benefits. They just felt some slight frustration about their manager’s overall lack of involvement.

**Table 54. Misfit Evolution: Sales Representatives (Case 3)**

The usage behaviour of the CRM coordinator was drastically different (table 55). His tasks were mainly administrative (e.g. prospect data entry, and data quality improvement) and technical (e.g. user support, system administrator, and management of emailing campaigns). His usage was not impacted by the lack of system customization (missing functionalities). The poor quality of the prospect database required him to extensively use the CRM system to correct mistakes and update customer profiles, as he was tasked by his manager to design and manage data quality improvement initiatives (e.g. verification of prospect and customer addresses, job functions). He quickly realized that he could sell his newly acquired skills on the market and was fully committed, for personal reasons, to the success of the CRM system.

	Misfit type	R1	R2	R3	R4	Trend	Comments
1	IT/business alignment	S	S	S	S		Very low impact on the CRM coordinator's CRM system use as his tasks are only administrative and technical.
2	Supervision	M	S	N	N		Tasks not clearly assigned at the beginning by the manager. No supervisory need; daily contacts with sales reps to compensate for a lack of direction.
3	Commitment	S	S	S	N		CRM considered as a new skill: personal interest for future career opportunities. No misfit in R4. Some initial but small confusion due to a lack of management direction.
4	Functionality	S	S	S	S		Some minor issues mostly due to a lack of CRM system knowledge. Always in a catch-up mode.
5	Data	S	S	S	S		Slightly impacted by the poor quality of data: launch of data quality improvement projects.
6	Strategy	S	S	S	S		Same remark as for the IT/business alignment misfit.
7	Organisation	S	S	S	S		With system administrator rights, not really affected by the silo organisation as he has an overview on all users and data.
8	Communication	S	S	S	S		Same remark as for the IT/business alignment misfit.

**Table 55. Misfit Evolution: CRM Coordinator (Case 3)**

When the researcher looks at the evolution of the eight misfits and compares the two user types (sales reps versus CRM coordinator), it clearly appears that the situation is worsening for the sales reps (increasing misfit gap in half of the categories), while it seems to improve for the CRM coordinator as he becomes more independent and realizes that his new skill set (CRM system administrator) might be valuable on the job market (table 56). Table 57 shows that the number of misfit types with a medium and high gap (therefore negatively impacting usage) decreases over time for the CRM coordinator while they increase for the sales reps.

	Misfit type	Sales Representatives (gap after six months)	CRM coordinator (gap after six months)
1	IT/business alignment	Increased (high)	Stable (low)
2	Supervision	Stable (low)	Decreased (none)
3	Commitment	Increased (high)	Decreased (none)
4	Functionality	Increased (high)	Stable (low)
5	Data	Stable (medium)	Stable (low)
6	Strategy	Stable (low)	Stable (low)
7	Organisation	Increased (medium)	Stable (low)
8	Communication	Stable (low)	Stable (low)

**Table 56. Misfit Evolution: User Comparison (Case 3)**

User	Usage phase at round 1	Misfit types at round 1 (Medium & Large only)	Usage phase at round 4	Misfit types at round 4 (Medium & Large only)
Sales Rep	Adaptation	Data	Adaptation	IT/business alignment & commitment & functionality & data & organisation
CRM coordinator	Adaptation	Supervision & commitment & data	Benefits realization	None

**Table 57. Misfit Types and Usage Phases (Case 3)**

### 5.3.3. Interactions among Misfit types

In an organisation where the manager does not get involved in day-to-day operations, CRM system users are left on their own. While the CRM coordinator saw some personal benefits (professional development) in learning and using the newly introduced CRM system, sales representatives were left alone with a tool that did not match their needs (lack of IT/business alignment). Inadequate functionalities and poor data quality negatively impacted their commitment, and

then their usage of Salesforce.com. On the other hand, the CRM coordinator was not so much impacted by those two weaknesses, and performed his assigned CRM system tasks in order to support the sales reps, but also to gain experience in a valuable area (CRM system administration). The CRM system use behaviour of both user types was driven by the identification of personal realized benefits: selling more for sales reps (short-term objective), and increase his market value for the CRM coordinator (medium-term objective). All other misfit types were merely marginal influencers.

#### ***5.3.4. Concluding Thoughts***

The only new misfit type was the IT/ business alignment. In an environment characterized by a lack of management involvement and a strong silo mentality, personal interests and personal realized benefits seem to be the key drivers for usage.

## Chapter 6. Cross-Case Analysis and Results

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The objective of the following cross-case analysis is to deepen the understanding and explanation of CRM system usage. For each case study, the researcher previously identified the key misfit types influencing usage, followed their evolution through time, situated users along the post-adoption usage phases at different points in time, and discovered factors enabling users to move from one (sub) phase to another. His goal is now to generalize within-case results and strengthen the theory by comparing within-case results, finding common elements, and discovering the structural conditions under which those common elements are most likely to occur.

### 6.1. Homogeneity of the Three Case Studies

Before conducting the cross-case analysis, the researcher will recapitulate the main characteristics of each individual case (Tables 58 to 61), and assess the level of homogeneity across the three research sites. Comparing the key characteristics of each case and highlighting their similarities and discrepancies should contribute to a better understanding of the upcoming cross-case findings.

The key features of the three CRM initiatives have been grouped in four tables. Table 58 lists company related characteristics such as the industry sector, the location, the number of employees, and the activity range. Table 59 summarizes the user population: the departments involved, the unit of analysis, the total number of CRM system users, and the number of users studied. Table 60 depicts the CRM project characteristics such as the duration of the study, the CRM system provider, the implemented CRM functionalities, the launch date, and the objectives of the CRM initiative. Finally, table 61 summarizes and compares data sources.

The researcher finds significant differences in the size of the studied companies and their industry sectors (Table 58). As already explained, the initial objective was to analyze and compare the implementation of the Siebel CRM system in three different countries but within the same company. Unfortunately, the CRM

initiative of the initial company was stopped after the first research in Romania, due to significant field reorganisation. Facing tough economic conditions negatively impacting IS related projects, the researcher ended up with three case studies in three different sectors: consumer products goods, higher education and real estate. The selection of the research sites was mainly opportunistic, but still met common criteria such as the departments involved and the CRM functionalities deployed. The size of each organisation was also significantly different. The first case was conducted in a manufacturing company with international operations and 850 employees in the country of study (36 000 worldwide). The second case study was led in a 300+ staff university, while the last study dealt with a seven people real estate agency. We previously saw that the size and business maturity did influence CRM usage, notably through a higher expertise and experience on project management practices. The heterogeneity of the three companies also allowed the researcher to confirm initial findings under different and sometimes opposite contexts. For example, the impact of management on staff usage was studied under very different conditions, spanning from a very centralized, top-down organisation (case one) to a laissez-faire type of environment (cases two and three). Despite such heterogeneity, some common findings (misfits) were found across the three cases, therefore reinforcing the explanatory power of our proposed theory.

	<b>Case 1</b>	<b>Case 2</b>	<b>Case 3</b>
<b>Sector</b>	Consumer packaged goods	Higher Education	Real Estate
<b>Location of the Study</b>	Romania (local ops) and Switzerland (HQ)	Switzerland	Switzerland
<b>Number of employees</b>	850 (locally), 36'000 (worldwide)	300 (excluding students)	7
<b>Activity range</b>	International (operations in 120 countries)	International (professors and student)	Regional (sales activity) and international (customers)

**Table 58. Companies' Characteristics**

There is more homogeneity in the user population (Table 59). In each case, the studied population was composed of a balanced mix of young and experienced staff, of employees and managers, all of them holding sales and marketing positions either in the field or at the headquarters. Their attitude toward

technology and their IS related skills were not considered as a differentiating element. The researcher did not notice any technophobia from interviewees who, on average, had a good understanding of the functioning of a CRM system.

	<b>Case 1</b>	<b>Case 2</b>	<b>Case 3</b>
<b>Population studied</b>	Planning and Marketing	Recruiting, admission, marketing & communications, fund raising	Sales
<b>Unit of Analysis</b>	Individual user	Individual user	Individual user
<b>Total CRM system users at studied site</b>	100	60	6
<b>Sample Studied (users)</b>	12	13	6

**Table 59. The User Populations**

There is also homogeneity in the objectives and functionalities of the deployed CRM systems (Table 60). Similarities were found in the sales and marketing functionalities implemented, in the objectives of process standardization, improved sales efficiency and centralization of customer data as well as in the type of CRM systems deployed (two out of three were Salesforce.com CRM systems). The differences in duration of the three studies (from six to nineteen months) were due not only to the size of the deployment and the complexity of the internal organisation, but also and foremost to the continuing discovery (or lack of) of new factors contributing to theory development.

	<b>Case 1</b>	<b>Case 2</b>	<b>Case 3</b>
<b>Duration of Study</b>	19 months	13 months	6 months
<b>CRM system</b>	Siebel (Oracle)	Salesforce.com	Salesforce.com
<b>CRM functionalities</b>	Territory Management System (route planning, sales and marketing)	Recruiting, Sales and Marketing	Sales
<b>Launch of the CRM System</b>	2008	2010	2012
<b>Main reasons for Launching</b>	Improving the planning of field	Increasing the quality and	Standardizing the sales process;



<b>a CRM Initiative</b>	marketing activities; increasing the efficiency of onsite reporting by field marketing; better access to information.	efficiency of customer-facing activities; centralizing and standardizing customer data and processes.	increasing the efficiency of the sales department; improving sales cycle visibility.
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**Table 60. CRM Projects' Characteristics**

The data collection and analysis process showed great similarities throughout the whole study not only in terms of data sources (interviews, documents, observations and system logs) but also in terms of the tool (QSR NVIVO) and methodology (GT - Strauss and Corbin) used for collecting and analyzing data. The main source of information was definitively the semi-structured interviews scheduled with the different stakeholders of the CRM project (table 61). The only but significant difference was the number of interviews held at each site as well as the time between interviews. A (too long) time interval was chosen for case one (more than 12 months between the two rounds of interviews) versus a (bi)-monthly interview schedule for cases two & three. This frequency change resulted in the collection of better quality data for cases two and three, as explained in the previous chapters.

	<b>Case 1</b>	<b>Case 2</b>	<b>Case 3</b>	<b>Total</b>
<b>Interviews</b>	21	90	24	135
<b>Interview frequency</b>	2 rounds, yearly	4 to 8 weeks	4 to 6 weeks	-
<b>Archival Documents</b>	40 (excl. emails)	300 (excl. emails)	10 (excl. emails)	350
<b>Direct Observations</b>	7	10	8	25
<b>CRM System Logs</b>	Monthly data	Monthly data	Monthly data	-

**Table 61. Data Sources**

## **6.2. Guiding Principles from Miles and Huberman (1994)**

The cross-case analysis follows the approach advocated by Miles and Huberman (1994). The researcher analyzed and wrote each of the three cases

independently, but used a common set of variables and axes of analysis (chapters three, four, and five). Usage phases and sub-phases, misfit types, transition enabling factors, and user behaviours are examples of the variables used and studied across all cases in order to get a comparable basis during the cross-case analysis. This approach does not rule out unique factors or patterns discovered in specific cases. For example, the non-linearity of usage progression found in case two, case-specific misfit types such as organisation and strategy in case study two and IT/business alignment in case study three, or even new user behaviours discovered all along the three cases were not left out of the analysis. The researcher used relatively similar tables and diagrams to display the major findings of each case, such as the usage process map, the table showing misfit types and their evolution over time, or the progression of user along the post-adoption usage process. The use of consistent axes of analysis and displays helped compare cases and draw initial attention on similarities and differences across cases. Matrices then compiled the findings of each case. The different types of comparison matrices are presented in the next sections of this chapter. The use of tables and graphs to summarize case evidence is also strongly advised by Eisenhardt and Graebner (2007) in order to propose a structured narrative to the reader of a multiple case study research.

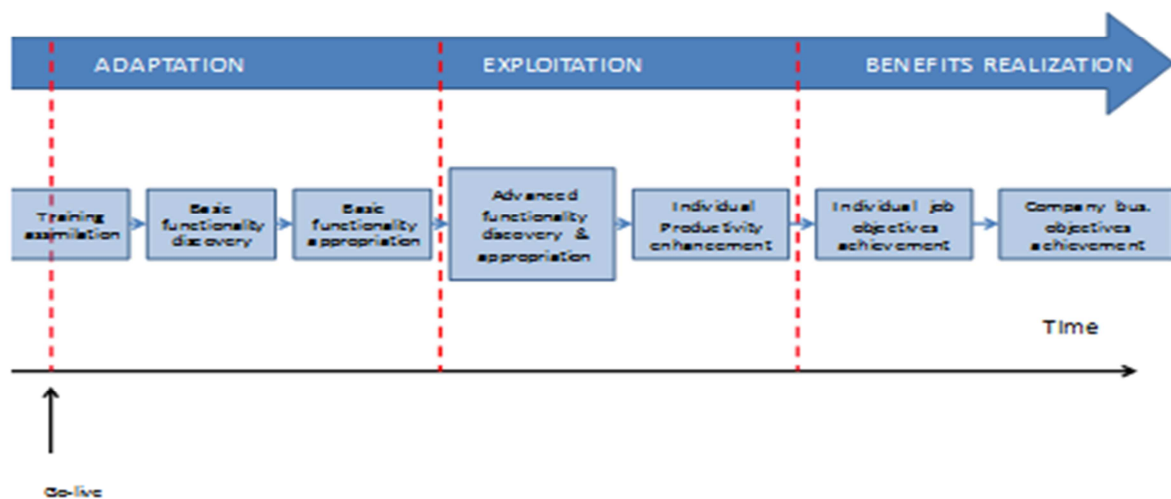
### **6.3. Cross-Case Displays: Exploring and Describing**

The objective of this section is to structure and group the findings of the three cases around the themes raised by the research questions. Different types of tables and figures will be used when exploring and describing the key findings. The main findings of the three individual case studies are grouped into the following five categories which correspond to the main topics of the research question: the usage phases and sub-phases, the progression of users along those phases, the misfit types, their temporal evolution, and finally the factors enabling users to transition from one phase to another.

#### **6.3.1. Usage Phases and Sub-Phases**

The first finding demonstrates that usage is a process made of stages and sub-stages along which users move and can be situated. This study provides details about those post-adoption usage stages. The process model described after the initial case study, and consisting of three phases and seven sub-phases was

confirmed by the following two cases, and provides more insights into CRM system usage (Figure 8). The only major difference between the three case studies relates to the duration of each phase/sub-phase which varies depending on the user profiles, the complexity of the CRM systems and processes, and the intensity of the misfit types. The researcher did not systematically track the duration of each phase and its sub-phases but noticed that it took users more time to progress through phases one (adaptation) and two (exploitation) during the first case study because of the high number and complexity of the introduced CRM functionalities (compared to the second and third cases). However, users' progression was accelerated in certain departments (e.g. for TMAs) by the active involvement of the department manager in supporting and controlling his staff. The extension phase proposed by Saeed and Abdinnour (2011) – the exploration and use of new CRM system functionalities by users - did not show up in any of the three case studies.



**Figure 8. Post-Adoption CRM System Usage Process**

Clustered summary tables (Tables 62-65) describe in details the different usage phases and sub-phases identified during the three longitudinal studies. The three phases and seven sub-phases are named and defined, achieved benefits

are highlighted and examples drawn from each case study are illustrated. The contribution and the importance (High [H] / Medium [M] / Low [L]) of each case are noted in the last column. The key characteristics of each (sub) phase are common across all cases, although the researcher could identify only a few users reaching phase three (benefits realization) in the second and third case studies. The last sub-phase entitled “Company Business Objectives Achievements” has not been reached in any of the three cases. However, the researcher believes that it is important to map it in his usage process as it was the initial objective of each organisation when launching the CRM initiative (e.g. increased sales and market share or cost reduction through improved process efficiency). This evidence tends to confirm that companywide benefits are difficult to achieve, at least in the three cases studied in this research. Potential explanations will be put forward in the next sections.

	Phases	Sub-phases	Description	Benefits reached	Illustrations	Case contribution
1	Adaptation	-	User is still familiarizing with the tool, not proficient enough to fully exploit the tool and better accomplish his/her job.	None	-	1 (H), 2 (H), 3 (H)
1a	Adaptation	Training assimilation	Initial reaction to the new tool, often emotional based on quality of training, benefits expected and previous IS exposure.	None	"I cannot cope with this bloody tool, another crazy idea from HQ". "We were desperately waiting for such a tool to organise our sales activities."	1 (H), 2 (H), 3 (H)
1b	Adaptation	Basic functionality discovery	Initial usage and discovery, training replication.	None	"Oh, it looked more user friendly during training; I really need help from experienced colleagues or project team to get started." "It is a very intuitive tool; I am already using the basic functionalities such as contact, activity and opportunity creation."	1 (H), 2 (H), 3 (H)
1c	Adaptation	Basic functionality appropriation	Basic usage of the tool in daily tasks, trial and error, sometimes leading to frustration.	None	"Now I use the new tool during customer visits. It takes me twice as much time to complete the report ..." "I now log on to Salesforce.com every morning, check and update my sales funnel and qualify my new leads. I save a lot of time even though I sometimes need to call the support team for help."	1 (H), 2 (H), 3 (H)

Table 62. The Adaptation Phase

	Phases	Sub-phases	Description	Benefits reached	Illustrations	Case contribution
2	Exploitation	-	User has a better knowledge of the tool and sees an increased productivity when accomplishing his/her daily tasks.	Increased individual productivity only	-	1 (H), 2 (M), 3 (L)
2a	Exploitation	Advanced functionality discovery and appropriation	Discovery and usage of new analysis capabilities or access to new data sets, beyond the basic data entry process benefits.	Back to individual productivity level before tool introduction, discovery of potential benefits	<p>“Ok, this new tool is not as user friendly as the previous one but a lot of data have been consolidated in this tool and I can now perform better customer analysis.”</p> <p>“I use a lot the alert and reminder functionalities of the CRM; it helps me better manage my busy schedule.”</p> <p>“I now can synchronize MS Outlook with Salesforce.com; it is great to have all info in Salesforce.com.”</p>	1 (H), 2 (H), 3 (L)
2b	Exploitation	Individual productivity enhancement	Tool is used in order to improve every day's life and enhance decision making through analysis, improved data quality and automatic reporting	Increased individual productivity compared to previous situation (time saving, better decision making)	<p>“Now that I know how to use the CRM analytics part, I do not have to come back to the office to access my customer data and run my reports as it is on my laptop. I can therefore visit more customers.”</p> <p>“Salesforce.com is available anytime, anywhere: I can look up a customer profile just before meeting him.”</p> <p>“I am just more organised ... I store all customer info in the CRM system ... better than my paper and pencil approach!”</p>	1 (H), 2 (M), 3 (L)

**Table 63. The Exploitation Phase**

	Phases	Sub-phases	Description	Benefits reached	Illustrations	Case contribution
3	Benefits realization		Through the tool, business benefits are achieved at individual and companywide level.	Users and company move from cost efficiency only to sales / profit related benefits	-	1 (H), 2 (L), 3 (L)
3a	Benefits Realization	Individual job objectives achievement	Individual objectives can be better achieved through the tool and the user's business acumen and motivation.	At individual level: i.e. better territory coverage and customer knowledge leading to increased sales and market share.	<p>"When I combine the advantages of the tool with my business skills as an experienced account management, I can really achieve benefits: btw, I over-achieved my quota this year."</p> <p>"I have so many customers in my resale business that I could not achieve my objectives without a tool like Salesforce.com. It has become my daily companion to help me manage a massive amount of information..."</p>	1 (H), 2 (L), 3 (L)
3b	Benefits Realization	Company business objectives achievement	Benefits are seen at company level.	At company level: improved sales, market share and cost reduction.	<p>"we have not gained any market share this year, two years after the CRM tool introduction"</p> <p>"Salesforce.com helps me be more productive, but it is only a software tool. I am the only one selling! No?"</p>	None

**Table 64. The Benefits Realization Phase**

Phases	Sub-phases	Description	Benefits reached	Illustrations	Case contribution
No usage	-	After initially trying the CRM system, the user stops using it	None	"I just gave up. This tool is not really useful to me and nobody cares if I use it or not ..."	2 (H)

**Table 65. The "No Usage" Phase**

### 6.3.2. The Evolution of Users along Usage Phases

A usage phase based sequence analysis table (Table 66) maps the trajectory of individual users along the phases and sub-phases usage process. The researcher drew the following conclusions from the analysis of the individual trajectories.

User (case study)	Training assimilation	Basic funct. discovery	Basic funct. Appropriation	Advanced funct. discovery & appropriation	Indiv. productivity enhancement	Indiv. objective achievement	Company bus. objective achievement	No use
	Phase 1	Phase 1	Phase 1	Phase 2	Phase 2	Phase 3	Phase 3	-
TMA1 (1)								
TMA2 (1)								
TMM (1)								
LCA1 (1)								
LCA2 (1)								
Merchandising manager (1)								
Trade segment. Manager (1)								
Op. planner (2)								
Admissions & recruitment (2)								
Internship (2)								
Fund raising (2)								
Marketing & Comms (2)								
Research (2)								
Nurse (2)								
CRM coordinator (3)								
Sales rep. 1 (3)								
Sales rep. 2 (3)								
Sales rep. 3 (3)								
Sales rep. 4 (3)								
Sales rep. 5 (3)								

**Table 66. Individual User Status at the End of Each Case Study**



Firstly, CRM users reach different usage phases and sub-phases at the end of each case study. This finding justifies the researcher’s decision to take the individual user as the unit of analysis. Table 66 illustrates this finding by showing the heterogeneity of the phases and sub-phases users reached at the end of each case study. Users are situated in all three phases (adaptation, exploitation and benefits realization). However, the researcher finds similarities between individuals of a same department like the TMAs and LCAs from the first case study, or the sales representatives of the third case study. This result tends to prove that the organisational (department) environment, and more precisely the role of the manager in supporting and controlling his/her staff as well as in hiring appropriate profiles, plays a significant role in staff usage and progression. Not surprisingly, all users went beyond the “training assimilation” and “basic functionality discovery” sub-phases of the initial “adaptation” phase. In all three case studies, a pro-active user support team initially helped them pass those two sub-phases. But companywide benefits were never reached in the three case studies. Although this last sub-phase does not correspond to a user-specific behaviour or benefits, it should have materialized the sum of all individual users’ contributions.

Secondly, the pace of progression along the post-adoption usage phases is user specific. Table 67 shows three main types of user trajectories.

Users (case study)	Training assimilation	Basic functionality discovery	Basic functionality appropriation	Advanced functionality discovery and appropriation	Individual productivity enhancement	Individual job objectives achievement	Company business objectives achievement	No use	Type of trajectory
Fund raising (2)	R1	R2	R3					R4-7	(3) stop using
Admissions officer (2)		R1	R2	R3	R4	R5-7			(1) steady progression
Internship officer (2)		R1	R2	R3-7					(2) interrupted progression
CRM coordinator (3).		R1	R2	R3		R4			(1) steady progression
Sales Rep. 1 (3)		R1	R2-4						(2) interrupted progression

**Table 67. Individual User Progression Types (Cases 2 and 3)**

Some users show regular and constant progress along the usage phase and are finally able to better achieve their individual job objectives thanks to the newly deployed CRM tool and processes. This is the typical case of the admissions department staff in case two who reached phase three (individual job achievement) six months after the deployment of the tool. A second type of users is the one who uses the CRM tool but do not see any benefits. Those users play the “good citizens”, and initially go beyond the adaptation phase to discover and use advanced system functionality (first sub-phase of the exploitation phase). However, if not motivated or pressured by their management, those users will stagnate. Although they must use the CRM system to report certain key figures and activities, they do not see the tool as helping him achieve their objectives. This is the typical case of the internship officer of case two or the sales representatives of case three who initially progressed but stagnated because they did not achieve any individual productivity benefits. A third type of user trajectory depicts users who, after an initially trial, stop using the CRM system because it does not add any value to their job and their manager does not exercise any control and pressure. Those users are typically left on their own and give up when they do not see any benefits for them or their department. The fund raising department of the educational institution is a typical example of this third type of trajectory.

Thirdly, the evolution of users across the usage phases is not always linear. We saw in the second case study that some users initially progressed and then regressed, ending up not using the CRM system. This behaviour was found with the funding raising department where some users initially used the CRM tool but later stopped when they realized that it could not bring added value and that nobody from management was really pushing and controlling their usage. This finding was partially confirmed in case three. Although sales representatives were still using the CRM system at the end of the research, they did so only to provide some basic data to their management. The researcher clearly noticed that users were progressively logging less frequently to the CRM system (from daily to weekly use), providing just enough data to satisfy their supervisor, but clearly using less and less functionality (e.g. sales activity tracking, prospect identification).

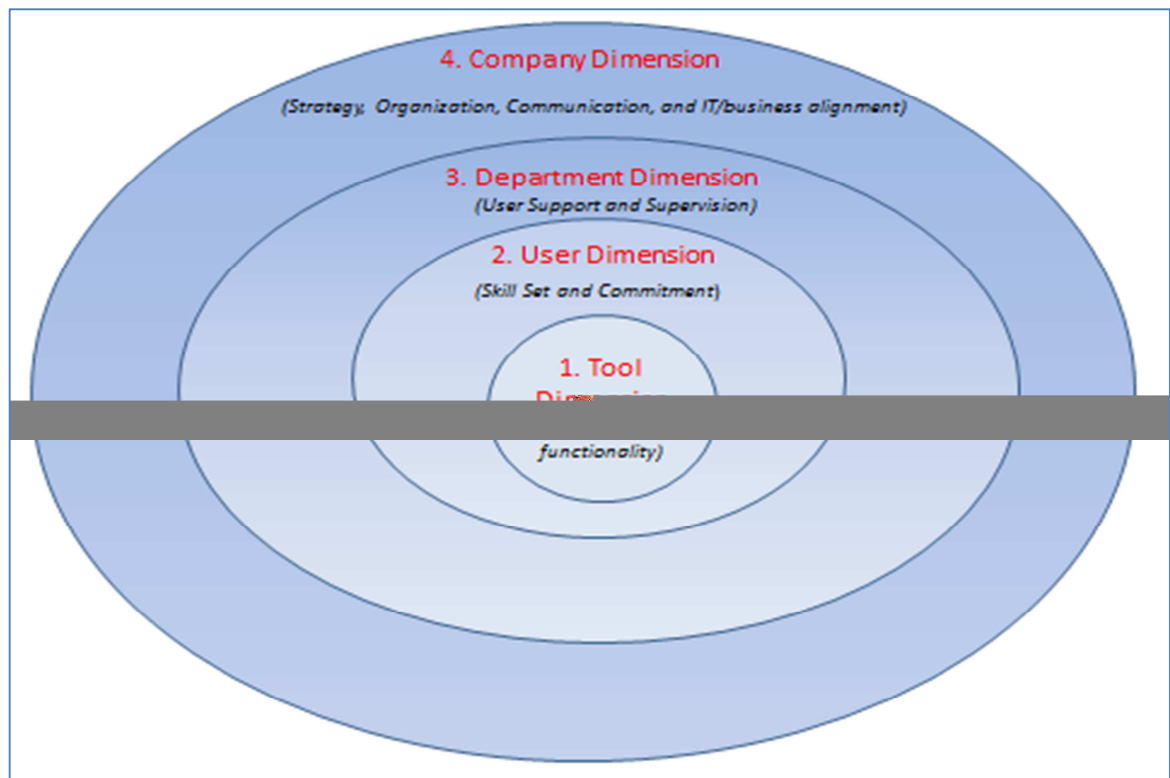
### 6.3.3. Misfit Types Influencing Usage

Users constantly compare the functionalities and benefits delivered by the CRM systems with their expectations and needs to accomplish their daily activities. The notion of misfit explains much of the usage behaviour and progression of individual users. As far as misfit types are concerned, we find great similarities among the three case studies, as show in Table 68. Specific misfits arise with the second case study (lack of strategy, low business maturity), and in the third case study (IT/business alignment).

	Misfit type	Case 1	Case 2	Case 3
1	Communication			
2	Supervision			
3	User support			
4	Skill sets			
5	Commitment			
6	Functionality			
7	Data			
8	Strategy			
9	Organisation			
10	IT/business alignment			

**Table 68. The Ten Misfit Types**

The researcher was able to further categorize the misfit types into four main dimensions: tool, user, department and organisation (Figure 9).



**Figure 9. Misfit Types Categorization**

The tool dimension reflects issues related to data quality and functionalities provided by the CRM system. The user dimension is characterized by the business and IT skill sets and commitment of the individual user. The department dimension encompasses the supervisory role of the manager (support, control, reward and sanction) and the user support organisation (i.e. helpdesk). The researcher included user support in the department dimension (and not in the company dimension) because he noticed that the project team deliberately put more resources to support certain key departments, at the expense of others (case studies one and two). The company dimension depicts the role of top management in setting up a coherent and shared CRM strategy, regularly communicating its benefits, getting rid of silos to ensure a company-wide collaboration in terms of processes and data, and aligning IT solution to business requirements. Those four dimensions represent the main components affecting CRM system use, and clearly demonstrate that the tool is only one of the parameters affecting usage, even though it initially draws most of the users' complaints and project teams' attention. The four dimensions represent the different environments the user is faced with. The researcher purposely uses larger and larger circles to represent each of the dimensions in order to show

that the scope (and complexity) of each environment is increasing as we move away from the pure tool environment towards the company environment.

### 6.3.4. The Evolution of Misfit Types

Tracking the evolution of misfit types is one of the main objectives of this thesis. The researcher looked at this evolution from two different perspectives: a user perspective highlighting the evolution of misfit by individual user (Table 69) and a usage phase perspective listing the misfit types influence usage at each of the three main phases (Table 70).

The researcher used a color coding scheme in Table 69 to highlight the evolution of misfit types between the beginning and the end of each individual case study: red for an increase of the gap, green for a decrease, and no color when no change was noticed. He has also indicated the severity of the misfit at the end of each study: none, small, medium and large.

Misfit type (dimension)	Op. Planner Case 1	TMM Case 1	LCA Case 1	Admissions officer Case 2	Fund raising assistant Case 2	Internship officer Case 2	CRM coordinator Case 3	Sales rep. Case 3
Functionality (1)	Decreased (small)	Decreased (small)	Stable (large)	Decreased (small)	Stable (small)	Increased (small)	Stable (small)	Increased (large)
Data (1)	Stable (medium)	Decreased (small)	Decreased (medium)	Decreased (no gap)	Increased (large)	Decreased (small)	Stable (small)	Stable (medium)
Commitment (2)	Stable (no gap)	Stable (small)	Stable (medium)	Stable (no gap)	Increased (large)	Increased (small)	Decreased (none)	Increased (large)
Skill sets (2)	Decreased (none)	Stable (small)	Stable (large)	Stable (no gap)	Stable (no gap)	Stable (no gap)	-	-
Supervision (3)	Increased (small)	Stable (small)	Stable (medium)	Decreased (small)	Stable (medium)	Stable (small)	Decreased (none)	Stable (small)
User support (3)	Decreased (none)	Increased (medium)	Increased (medium)	Increased (medium)	Stable (small)	Increased (medium)	-	-
Strategy (4)	-	-	-	Stable (no gap)	Increased (large)	Stable (no gap)	Stable (small)	Stable (small)
Organisation (4)	-	-	-	Stable (small)	Increased (large)	Stable (no gap)	Stable (small)	Increased (medium)
Communication (4)	Stable (no gap)	Increased (small)	Stable (large)	Increased (small)	Increased (large)	Stable (no gap)	Stable (small)	Stable (small)
IT/business Alignment (4)	-	-	-	-	-	-	Stable (small)	Increased (large)

Table 69. Misfit Evolution for Selected Users

There is some consistency across the three case studies. Key trends appear for each of the four dimensions previously listed: tool, user, department and organisation.

Firstly, functionality and data misfits (dimension 1: tool) seem to narrow over time, at the exception of case three sales representatives. Functionality issues are usually taken care of fairly rapidly by the CRM support teams albeit it takes more time to roll out advanced search and reporting solutions such as multi-criteria queries and scorecards (cases one and three). Data issues are more problematic. Although data migration problems are usually solved (e.g. data format or missing fields), the quality of legacy data transferred into the CRM system seems to be a persisting problem for quite some time, and sometimes until the end of the study. Cases two and three are typical examples of “garbage in – garbage out” where the poor data quality of the legacy systems was not improved before the migration to the CRM system jeopardizing the whole project. Another issue related to data quality is due to the lack of cooperation among and therefore contribution of departments (case two) or individuals (case three) who do not want to enter “their” data in the common CRM database. They believe that they will lose power and competitive advantage if they enter “their” data in a common pot. This behaviour results in a poor database which in turn greatly influences the value and usage of the CRM system.

Secondly, commitment (by user) and skill set (of users) misfits (dimension 2: user) seem to remain at similar levels throughout our three studies. Users seem to acquire during the first two sub-phases of the adaptation phase a good idea of the usefulness of the CRM system for their job and consequently commit (or not) to the new initiative. This initial attitude is sometimes modified by the actual use of the CRM system, and explains why we have a few examples where commitment fades away (cases two and three). As far as skill sets are concerned, the researcher observed stability in the evolution of the misfit: it was no surprise as we did not see any IT or business training beside the initial session.

Thirdly, we have contrasting results for the department dimension (dimension 3). The supervision misfit remains stable while the user support misfit regularly grows due to diminishing resources allocated to the project. Lights are turned

off very soon just after the adaptation phase (Al-Mudimigh, 2007) and users are sometimes left on their own with minimum support and no resources to enhance the CRM system and adapt it to their evolving needs. This lack of support was also noticed by the CRM coordinator (case three), although it had no impact on CRM system usage, and therefore was not considered as a misfit.

Fourthly, the company dimension (dimension 4: communication, strategy, organisational structure, and IT/business alignment) seems to progressively influence usage. This misfit clearly appears after the adaptation phase. The researcher noticed a gradual deterioration of the situation in all three cases. Our educated user population expects some regular communications from top management about the benefits of the tool for their company. They unfortunately rarely got a satisfactory answer, except when the introduction of the tool was merely to automate a particular process such as email campaign. Without feedback on the benefits generated by their use of the CRM system, and most of the time without a clear vision about the CRM initiative, sales and marketing users slow down their progression and stick to the minimum required by their management. This lack of enthusiasm was reinforced by the “silo” nature of the organisation (cases two and three).

Although the discovery of the factors influencing usage does not bring any new information as they almost all have been found in DOI and TOE based research, the evolution of those factors through the usage phases is something of interest as it highlights the importance of management through continuing support, control and leadership and minors the influencing factors related to technology (stability, usability and user antecedents). The general consensus is that organisational issues are more difficult to resolve than technical ones (Ward, Hemingway and Daniel, 2005). Short-term influencing factors seem to be the focus of attention of project stakeholders (bugs, functionalities) at the expense of long-term impacting factors such as strategy development, benefits measurements and staff training (programme management).

A case-level, time-ordered matrix (Table 70) was then used to follow the evolution of misfit types against the three main usage phases. The researcher has listed all misfit types and indicated if they had an influence on CRM usage

in the three usage phases. Additionally he mentioned which case studies supported our findings.

Dimension	Misfit types	Phase 1 Adaptation	Phase 2 Exploitation	Phase 3 Benefits	Case studies supporting the finding
Tool	Functionality	X	X		1, 2 and 3.
	Data	X	X	X	1, 2 and 3.
User	Skill sets			X	1 and 2.
	Commitment	X	X	X	1, 2 and 3.
Department	Supervision	X	X	X	1, 2 and 3.
	User support	X	X	X	1 and 2.
Company	Strategy			X	1 and 2.
	Communication		X	X	1, 2 and 3.
	Organisation		X	X	2 and 3.
	IT/business Alignment	X	X		3.

**Table 70. Misfit Types across Usage Phases**

First and foremost, the department dimension (supervision by manager and user support by project team) exerts a continuous influence on usage during every phase and sub-phase of the usage process. Whether it is the supervisor motivating, coaching but also controlling and potentially rewarding/penalizing his/her staff, or the project team delivering training and later supporting users in their day-to-day activities, this dimension is crucial. The researcher has regularly highlighted the importance of the role of the manager in each of the three case studies and showed the impact of his/her behaviour on staff usage. User support also helped individual CRM users initially master the tool and then progress throughout the post-adoption process. Unfortunately, resources initially allocated to those tasks were often reassigned to other projects, leaving users without an efficient support after the initial adaption phase; the consequence was an increase in the severity of the misfit.

Secondly, tool capabilities are often a scapegoat for many users who tend to voice their opinion strongly at introduction. However, they do not play an influential role in the long-term. Phase one often sees some complaints mostly due to a lack of training or a radical change in usability compared to the previous tool but those complaints slowly disappear due to several factors: an



efficient support team, the acquisition of tool specific knowledge, the help of colleagues and supervisors or sometimes just the fact that there is no other choice (mandatory usage). Data issues are an area of more concern as previously discussed and can drag on along all phases if not properly addressed. The unwillingness of departments and users to cooperate during the CRM initiative and to jointly contribute to the development of a rich customer database has often the disastrous consequence of making the CRM system useless. Departmental silos are probably the biggest threats to the success of CRM initiatives. CRM can be successful only if it is thought of and implemented as a cross-department initiative.

Thirdly, business (CRM) skills and to a much lesser extent IT skills play a significant role in phase three when it comes to benefits realization. Using the tool is a necessary condition, knowing how to use it in order to reach individual objectives is another obstacle in delivering value. This clearly demonstrates that the CRM tool is only an enabler in the achievement of CRM business objectives and that personal experience and skills make it possible. Needless to say that commitment (to your company, department, and CRM initiative) affects usage throughout all post-adoption phases. The over-estimation of the role of IT, at the expense of a sound CRM business strategy and a staff CRM skill development plan, was a reason for the CRM failure seen in the second case study.

Fourthly, top management has a major role to play and directly or indirectly influence CRM system use. Making sure that CRM objectives are communicated and understood, regularly showing the achieved benefits to users and their managers and preventing the emergence of departmental silos was apparently not on the agenda of the top management of the three companies we studied. Long-term, this lack of attention had negative repercussions on a user population who expected to learn more about the customer strategy behind the CRM project and maybe less about tool functionalities and process automation.

### 6.3.5. Transition Enabling Factors and User Progression

Table 71 aims at presenting the relationships between transition enabling factors (misfit types) and user progression. The researcher has ranked users in order of increasing usage, from no use to phase three. His objective is to highlight the factors which negatively or positively influence the progression of individual users by finding patterns between the phase reached by a particular user and the top influencing factors (misfit). He has selected seven users representing the three case studies and having reached various phases from adaption to benefits realization. He has also indicated the importance (Large / medium / small / none) of the misfit on the usage of the individual usage.

User (Case study)	Phase (sub)	Functionality	Data	Skill sets	Commitment	Supervision	User support	Strategy	Communication	Organisation	IT/Bus. alignment
Fund raising director (2)	No use	N	S	S	L	L	L	M	M	L	M (*)
LCA2 (1)	1(c)	L	M	S	M	L	M	L (*)	L	L	L (*)
Sales reps (3)	1(c)	L	M	N (*)	L	M	M (*)	S	S	S	M
Internship officer (2)	2(a)	S	N	N	N	M	S	S	S	M	S (*)
TMA1 (1)	3(a)	S	M	N	N	S	N	S (*)	M	S (*)	S (*)
Op. Planner (1)	3(a)	S	S	N	N	N	N	S (*)	S	N (*)	N (*)
CRM Coordinator (3)	3(a)	S	S	N (*)	N	N	N (*)	S	S	S	S
<b>Transition Enabler</b>	-	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>YES</b>	<b>YES</b>	<b>YES</b>	<b>N/A</b>	<b>N/A</b>	<b>YES</b>	<b>N/A</b>

**Table 71. Transition Enabling Factors for Selected Users**

(\*) Misfit not found for the entire organisation but estimated by the researcher for the individual user

There seems to be a correlation between the progression of users and the following misfit types: supervision, commitment, user support and organisation. Those misfit types consistently show greater values for users having reached only initial stages of the post-adoption phases while users reaching phase three (benefits realization) exhibit low or most often no misfit. For those four variables the researcher clearly sees a diminishing misfit as we move to users reaching further post-adoption phases. For the rest of the variables, results are contrasted and do not show any strong pattern. Interestingly, those four misfits are related to three of the four dimensions (user, department and company),

leaving the tool dimension without any significant and consistent influence on usage and user progression.

The two extreme cases of the fund raising director (case two - no use) and the operational planner (case one – phase 3a) illustrate the above finding. Table 71 shows that the following misfits are large: commitment, supervision, support, and organisation. They are the ones which initially slowed down the progression and finally explained why the director of the fund raising department stopped using the CRM tool. On the other hand, the operational planner of case one did not experience any misfit for commitment, supervision, user support and organisation, and rapidly reached the benefits realization phase.

#### **6.4. Cross-case Displays: Ordering and Explaining**

The previous section was a structured description of *what* and *how* things happened, across the three case studies. The researcher now turns to the question of *why* things happened. More specifically, he is seeking explanations, including explanations of causality, for the diversity of trajectories of individual CRM users along the post-adoption usage process. He aims at finding a root cause (core category in GT terms) explaining why users progress at different paces, why they situate at different phases, and also why users within the same department usually show a similar evolution and usage behaviour.

##### **6.4.1. In Search of the Root Cause: Leadership Styles.**

An effort was made to link the different factors influencing CRM usage and see if one cause could explain the numerous misfit types found across the three case studies. The researcher's objective was to identify a root cause and draw a causal model composed of a network of variables (misfit types) with causal connections among them. His initial root cause and causal diagrams were shown to users and project managers of the three case studies in order to test and refine the initial proposals. Several iterations were conducted before CRM project stakeholders agreed on a common diagram. The root cause seemed to be the leadership styles of the three companies under investigation. All misfit types could be linked either directly or indirectly to the leadership styles of top management. The identification of this root cause was triggered by the striking difference in management style between the three companies. On one hand,

the researcher found a manufacturing firm with a strong hierarchical culture, a top down approach and a strict measurement system inherited from decades of manufacturing and sales and marketing field operations. On the other hand, he had an education institution and a small real estate agency characterized by a lack of involvement of top management in day-to-day activities, strong departmental and individual silos and almost no measurement system either at individual or project level.

Top management support is often critical for creating a supportive climate and providing adequate resources for the adoption of new technologies (Premkumar and Roberts, 1999; Kuo and Lee, 2011). Management plays a crucial role in IT adoption and use, and its leadership style can greatly influence the success of IT implementations (Stone, 1994; Tarafdar and Vaidya, 2006; Kim, Park and Lee, 2007; Bueno and Salmeron, 2008; Chatzoglou, et al., 2009; Seah, Hsieh and Weng, 2010). By leadership the researcher means the process (act) of influencing the activities of an organised group in its efforts toward goal setting and goal achievement (Stogdill, 1950; Limsila and Ogunlana, 2008). He based his definition of leadership styles on the work by Bass and Avolio (1993): laissez-faire style (non-leadership), transactional leadership (based on reward system and punishment) and transformational leadership (based on inspirational and behavioural charisma). This categorization of leadership styles has been extensively used in the literature on organisational performance (Haakonsson, et al., 2008; Singh, 2010; Chu and Lai, 2011; Michie and Zumitzavan, 2012; Pereira and Gomes, 2012; Clarke, 2013)

Laissez-faire leadership describes leaders who avoid influencing their subordinates and shirk supervisory duties (Bass, 1973). Bass (1990) finds that laissez-faire leadership results in low level of organisation, efficiency, productivity, morale and satisfaction. This is the situation the researcher found in the second (school) and third (real estate) case studies where no CRM vision, mission and companywide action plan were provided by top management and no boundary conditions were established. Therefore even though some of the project team members and users were motivated and competent, the CRM initiative ended up very soon either as an uncoordinated set of individual departmental initiatives or in a no man's land (no usage). The researcher noticed the consequences mentioned by Bass (low level of

productivity, morale and satisfaction all along the interview process, except in the second case study for one department (admissions and recruitment) where the local management team overcame this difficulty by setting their own departmental vision, mission and action plan. However, the reasons for this laissez faire leadership style were different. In the second case study (school) there was a strong belief that the employees knew their job best and that departments should be left alone to do their job. Whereas the lack of real estate market and sales experience of the newly appointed manager was the main reason in the third case study. On the other hand, the initial case study was conducted in a large industrial, hierarchical company acting in a very competitive market, with a lot of people striving to reach top positions and where managers took major responsibility for decision making either in a directive or consultative mode. The culture of this company assumed that individual motivation and achievement should be paramount and that sanctioning and rewarding were part of everyone's daily life. This is typically a transactional style in which the leader and his / her subordinates agree together to accomplish the organisational goals and the leader provides rewards to them. None of the three companies corresponded to the transformational leadership style characterized by the trust, admiration, loyalty and respect of subordinates toward leaders.

Among the five dichotomies in leadership style highlighted by Bass (1973; 1990) – democratic vs. autocratic, participative vs. directive, relations vs. task oriented, consideration vs. initiative, and laissez-faire vs. motivation to change - the “laissez-faire versus motivation to change” has retained all our attention because it clearly explains the differences noticed between the three case studies.

#### **6.4.2. Root Cause and Misfit Types: Some Causality Effects**

The researcher will now investigate the consequences of the root cause on the origin and evolution of the misfit types. He will first illustrate the effect of the “laissez-faire” approach of the educational institution and real estate agency on the ten misfit types and CRM system usage, then contrast those results with the

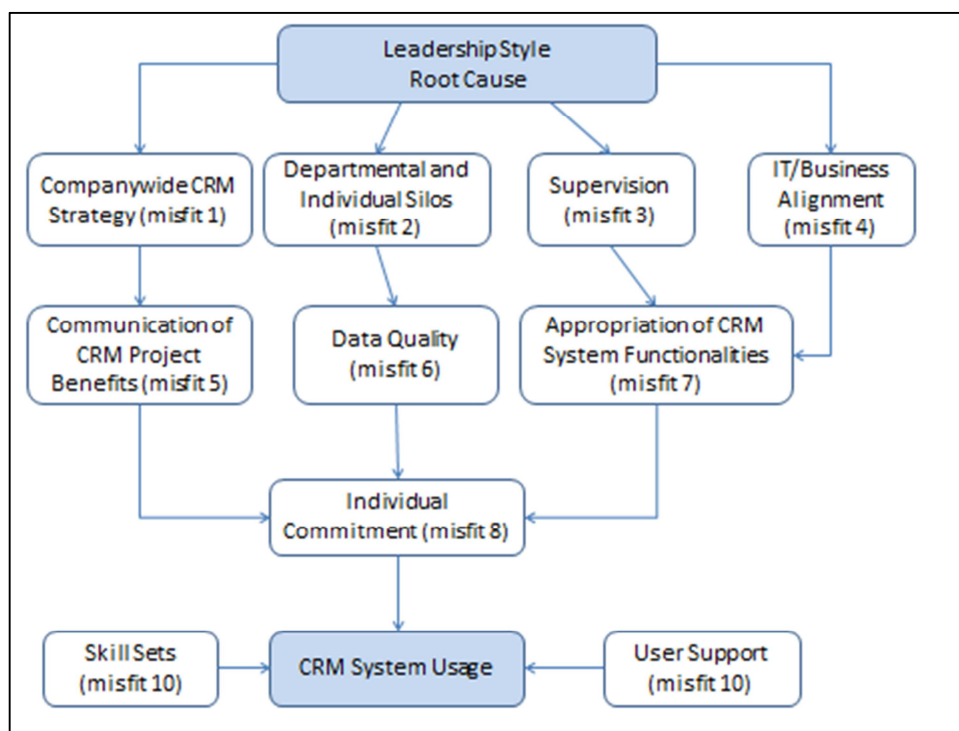
first case top-down, hierarchical organisational environment, and finally build a causal flowchart explaining post-adoption CRM system use.

The laissez-faire leadership approach of the educational institution and the real estate agency had three initial major drawbacks: a lack of companywide CRM strategy (misfit 1: strategy), a lack of measurement and control of company projects and departments leading to the appearance of silos (misfit 2: organisation), a fairly loose supervisory culture of their management layers (misfit 3: supervision), and generally a lack of alignment between the loosely defined company strategy and its IT projects (misfit 4: IT/business alignment). The lack of CRM companywide strategy prevented the communication of companywide benefits all along the initiative (misfit 5: communication) which left many users and their managers without any feedback and guidance and somehow puzzled. Such a leadership style also set a fertile ground for the creation of departmental and individual silos with their own and sometimes conflicting agendas, their own sales and marketing strategies, and unfortunately their own customer databases. Sharing customer data was not on the agenda of departmental managers and their staff. This selfish behaviour resulted in a fairly poor quality database (misfit 6: data). Because of the lack of cooperation among departments, inconsistencies quickly appeared in the customer database. As no coordinated effort was put at company and department levels to clean customer data, customer record duplicates and even contradictory information polluted the new centralized CRM database. Faced with dubious customer data, users were reluctant to use the CRM system and started to set up their own customer database in MS Excel or Outlook. Data quality issues greatly impacted the use of the CRM system by staff. As users were often left on their own they had difficulties in assessing the potential of the CRM system functionalities (misfit 7: functionality). Furthermore, a lack of experience in using IT tools (misfit 9: skill set) as well as the lack of support from the project team after deployment (misfit 10: user support) reinforced users' decision to stop or slow down the use of the new CRM tool (misfit 8: commitment).

The low usage and slow progression of CRM users studied in cases two and three were mitigated or reinforced by the following two factors. Firstly, users' IT skills did not make a difference in the medium to long term as all three tools were intuitive, provided the necessary functionalities and were supported by a

professional and reactive project team. However, business skills such as account management or data analysis were enabling factors in user progression towards phase three (benefits realization). Secondly, a performing user support team was very helpful during the adaptation and exploitation phases for all case studies. Unfortunately, user support gradually deteriorated over time as resources were assigned to other projects. Again, users were left on their own, and the researcher could gradually see an increasing gap between their new business needs and system functionalities, another reason negatively impacting system usage.

The causal diagram of Figure 10 summarizes the consequences of the leadership style on misfit types and CRM system use.



**Figure 10. Causal Diagram: Overall Framework**

The leadership style seems to directly or indirectly explain the ten misfit types the researcher previously identified within the company (strategy, organisation communication, and IT/business alignment), department (supervision and user support), user (commitment and skill set) and tool (functionalities and data) dimensions. The researcher could clearly see a severe misfit along the four

misfit types of the company dimension for the school and real estate case studies where very few CRM users knew what the initiative was all about and how it could generate benefits for them, their department and their company. On the contrary, he felt that the misfit was much smaller for strategy, organisation and IT/business alignment in the first case study although the lack of communication of companywide benefits by top management negatively influenced CRM system usage in the long-term.

However, despite recurring data quality issues, a lack of cooperation between departments, a lack of overall CRM vision or a poor IT/business alignment, the researcher could clearly identify a key factor impacting system usage, namely, the department manager. This was demonstrated by the difference in usage between the LCA and TMA departments in the first case study and the successful introduction of the CRM system in the admissions department of the second case study. Those two examples prove that with appropriate guidance, support, coaching and control of the department manager, combined with a sound department CRM strategy and action plan, CRM system usage can be improved. This was clearly illustrated in case two where the admissions department was the only successful department thanks to the experience and motivation of its management. In all three cases better results were achieved when the role of the manager was supported by a good user support team. However, a good support team had only marginal impact on usage if not supported by department management.

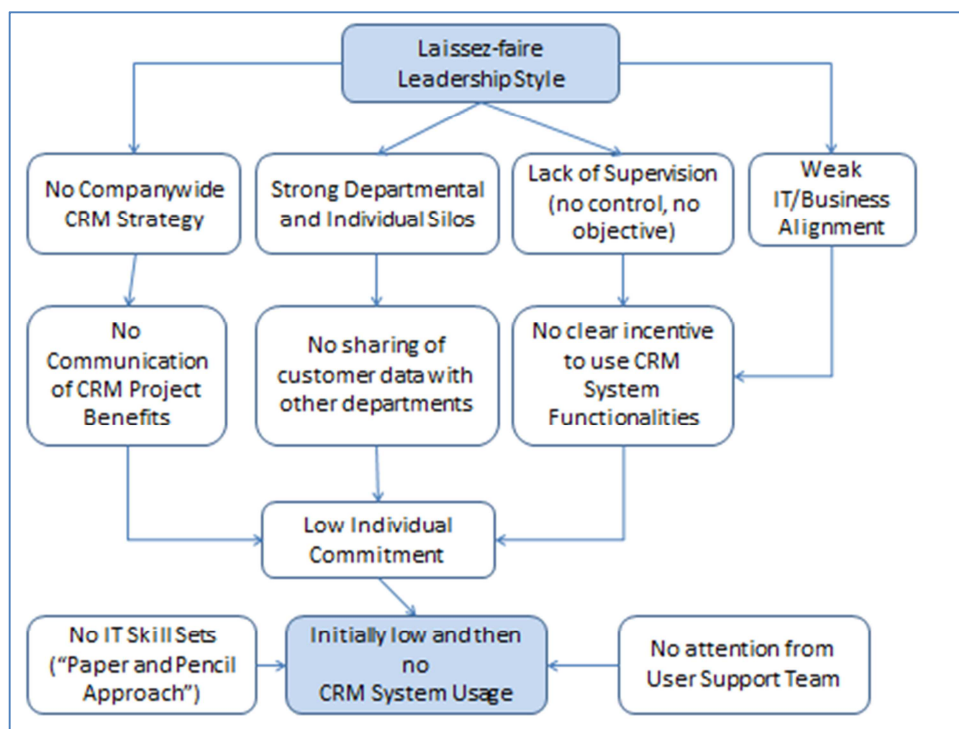
## **6.5. Cross-case Analysis: Verifying Conclusions**

In order to verify the causal diagram presented in Figure 10, the researcher will illustrate three examples of three different CRM user behaviours (Figures 11, 12 and 13).

Figure 11 shows the causal flowchart for the director of fund raising of the second case study. The educational institution was characterized by a *laissez-faire* leadership style from its top management. The CRM initiative started as a pure IT initiative with a strong process automation perspective. As no companywide CRM strategy was set up, individual departments were left on



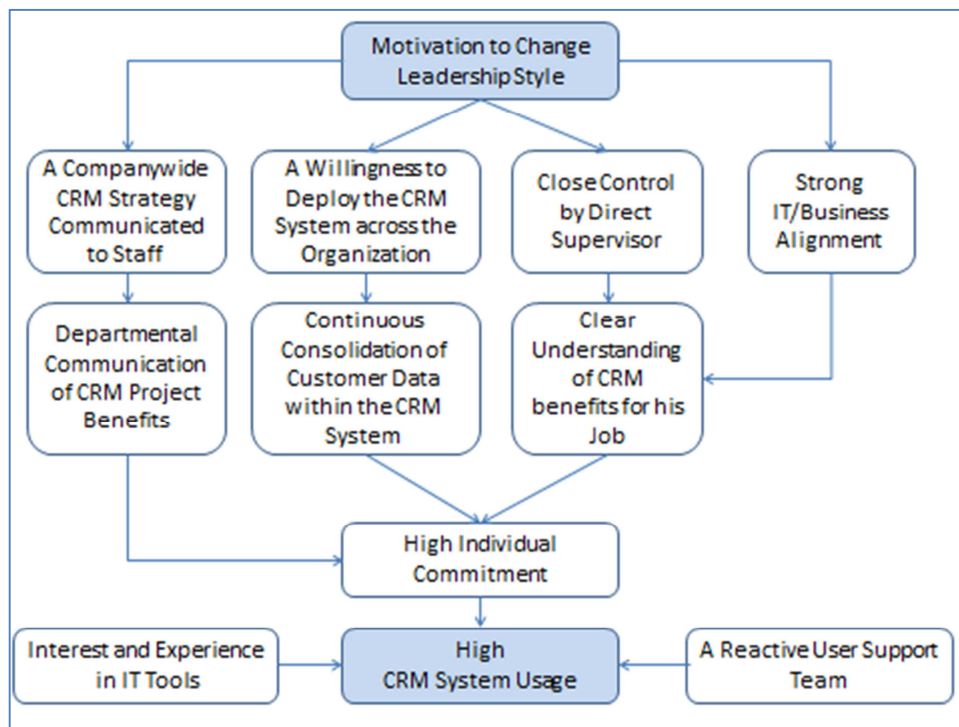
their own to implement the CRM system: this great leeway reinforced the silo mentality already present within this institution. The manager of the fund raising director did not pay any attention to the deployment of the system within his department, and therefore no objectives were set for his staff. Left with no objectives, a useless potential donors database (customer facing departments were reluctant to provide their contacts), and no overall vision of the CRM initiative for his school, the fund raising director initially tried the Salesforce.com solution to be a “good corporate citizen”. He soon realized that the new CRM system did not add any real added value to reach his objectives. Furthermore, his lack of experience in using IT tools as well as the lack of support from the project team reinforced his decision to stop using the newly deployed CRM. He went back to his previous tools: MS outlook, MS Excel and hand-written notes on his pad. Sadly, nobody, even within the project team, noticed his change in behaviour.



**Figure 11. Causal Diagram: Fund Raising Director (Case 2)**

Figure 12 shows the causal diagram for the operational planner of the first case study. His company was characterized by a clear command and control management style. The CRM strategy was set up by the Geneva headquarters and implemented in local organisations with only marginal customization. However, the roll out plan was communicated to all management layers and overall objectives were known by all. One of the CRM goals was to unite the

marketing department around a single customer database and therefore get rid of existing silos. The operational planner was one of the key beneficiaries of this data consolidation and of the new functionalities brought by the system. He was closely supported by his manager who was also the local project manager. Although companywide benefits were not communicated by local top management, the operational planner received regular information of the value generated by the tool on his department through regular update meetings by his manager. This reinforced his commitment to the newly deployed tool. Even though the initial trial and error period was sometimes difficult, the operational planner was very keen in using an advanced technology and always benefited from a very reactive local and HQ support teams. He was one of the first users to reach phase three (benefits realization).



**Figure 12. Causal Diagram: Operational Planner (Case 1)**

Figure 13 shows the causal diagram for the admissions officer of the second case study. This is an interesting case as it proves that the influence of a departmental manager can compensate for the lack of companywide strategy in a laissez-faire type of environment under certain conditions. The admissions officer worked in a department which did not depend on any other departments. Therefore, her CRM savvy manager was able to set up her own departmental CRM strategy, consolidate in Salesforce.com all customer related data needed for the operations of her department, and make sure that all her staff were

supported by the local project team. Weekly meetings were held to follow the progress of the system usage and issues were quickly escalated to the project manager. The CRM experience and motivation of the department manager mostly explain why her staff quickly reached phase two (exploitation) and later phase three (benefits realization). At a department level, she even reached the last sub-phase of phase three (departmental objective achievement).

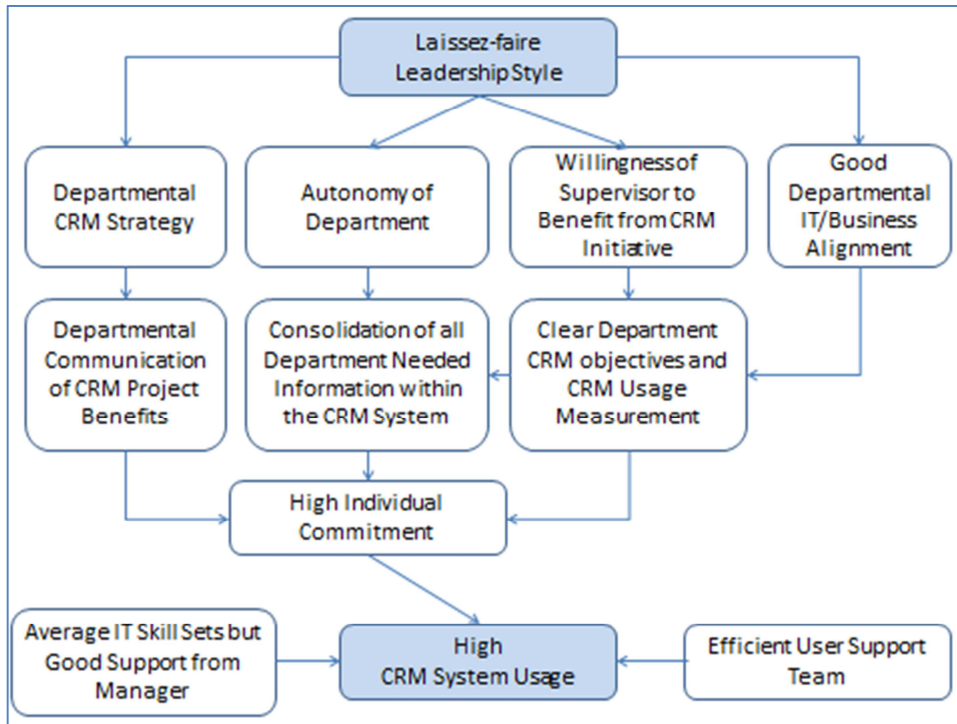


Figure 13. Causal Diagram: Admissions Officer (Case 2)

## 6.6. Mandatory versus Non-Mandatory Usage

CRM system usage was made mandatory in the first case study for all marketing staff except the LCAs who received little attention from the project team. The LCA business unit was not the focus of the initial deployment phase as it represented a small percentage of the company's total sales. Not surprisingly, LCAs did not pass the adaptation phase while all other users reached phases two (exploitation) and three (benefits realization). Usage was not made mandatory in the second case study except for the admissions and recruitment department which was the only one reaching phase three. However, the other users ended up in various phases and sub-phases: no use by the fund

raising and research departments, increased individual productivity (phase two – exploitation) by the nurse and basic functionality appropriation (phase one – adaptation) by the marketing and communications department. Like in the initial case study, usage was mandatory in the real estate case. The researcher found users all over the post-adoption usage process, some reaching phase 3 while other barely passed the first phase. However, because of some minimum tracking by management, nobody stopped using the CRM system.

The researcher could conclude from those three case studies that making usage mandatory ensure that users reach at least the exploitation phase (phase two) but does not guarantee that individual or company objectives are achieved (phase three). On the other hand, when usage is not mandatory we find a variety of usage behaviours ranging from no use to individual productivity enhancement (phase two). We did not find any users in phase three when usage was not mandatory. Because our overall sample is relatively small, one must be very cautious about this last statement. The variety of usage behaviours in a non-mandatory environment was mainly explained by the role of the department manager and the perceived and realized usefulness of the tool for the individual users (e.g. LCAs of case one and sales representatives of case three). The third case study is a typical example of a tool which was initially made mandatory by the sales director but whose usage gradually declined because of a lack of generated benefits combined with a diminishing attention from management. It also reflected the rather independent behaviour of our user population (sales representatives) vis-à-vis its management, as long as revenue objectives are met.

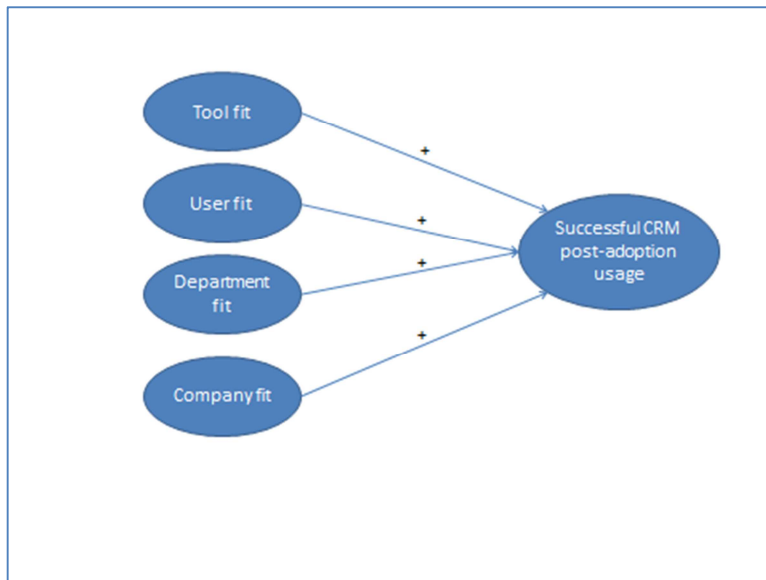
## Chapter 7. Summary, Conclusions, and Recommendations

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### 7.1. Key Findings

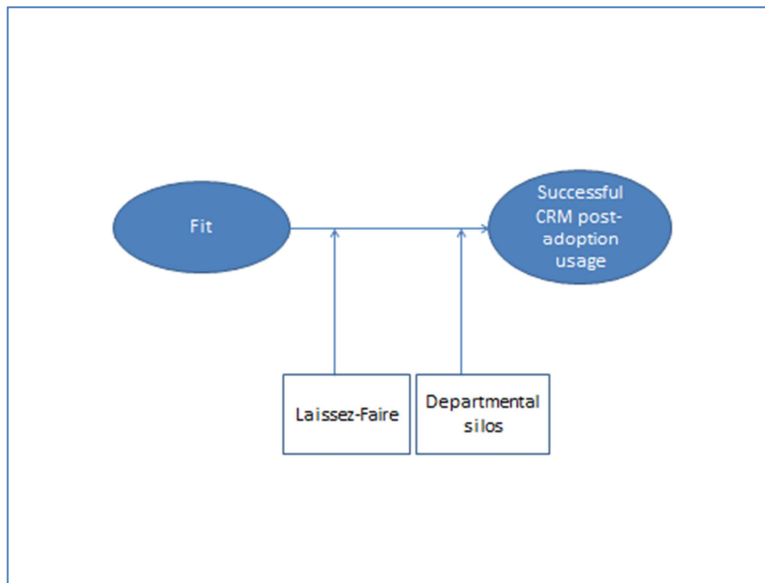
This study builds upon the recent work done by Jaspersen, Carter and Zmud (2005) and Saeed and Abdinnour (2013) on post-adoption IS usage phases and individual user behaviours, and by Strong and Volkoff (2010) on organisation-enterprise system fit. This five-year-long research conducted at three different CRM implementation sites shows three distinct post-adoption CRM system usage phases (adaptation, exploitation, and benefits realization). It then further breaks them down in seven sub-phases (training assimilation, basic functionality discovery, basic functionality appropriation, advanced functionality discovery and appropriation, individual productivity enhancement, individual job objectives achievement, and company business objectives achievement). It then highlights that ten misfit types differentiate users at the different phases and sub-phases of post-adoption CRM system usage. This analysis is based on the behaviour of individual CRM system users, and shows that they situate all along the usage phases. The individual progression varies according to the evolution of the size of user specific misfit types, and is not always linear. For example, some users initially progress, and then stop using the CRM system because of lack of individual commitment. Those ten misfit types are grouped into four dimensions: a tool dimension (data and functionality misfits), a user dimension (skill sets and commitment misfits), a department dimension (user support and supervision misfit), and a company dimension (strategy, organisation, communication and IT/business alignment misfits).

Main constructs for successful CRM



This study follows the evolution of each dimension and their related misfit types, and finds that tool dimension misfits seem to narrow over time, while user dimension misfits remain stable and company dimension misfits tend to widen, and to increasingly influence individual usage. Department dimension misfits show contrasting and inconclusive results, but highlight the crucial role of the direct supervisor.

Finally, a series of causal diagrams relate the influence of the company's leadership style on misfit types and individual CRM system usage. They tend to prove that a laissez-faire management style characterized by a lack of a companywide CRM strategy and CRM metrics, and the presence of departmental silos acting in their own best interest will generally have disastrous consequences on CRM system use and benefits.



## 7.2. Implications for Research: Methodology

As discussed throughout this paper, previous research has overlooked a number of methodological aspects when examining post-adoption CRM system usage. By studying individual post-adoptive behaviors at the level of CRM system features and over a long period time, this paper has revealed many sources of variation and has contributed to a better understanding of CRM system use. Key methodological implications are summarized below.

### ***A study conducted at the individual user level: looking through a magnifying glass***

Firstly, this study reveals that an analysis of CRM system usage at the individual user level provides meaningful insights on usage behaviors and progression patterns. It shows a great level of heterogeneity among users and departments. It also facilitates the discovery of factors influencing usage, and the follow-up of their evolution by focusing on a smaller, well-defined unit of analysis. Studying usage at company level would have probably overlooked the intricacies of individual user behavior (e.g. the non-linearity of usage progression), and provided a more homogeneous view of CRM system usage.

Although the researchers were able to generalize some key findings across the three cases, one of the key lessons learned is that usage is the sum of individual and diverse trajectories. Such an approach has also highlighted the presence of transition enabling factors explaining for individual user progression across usage phases.

Our finding confirms previous work by Tyre and Orlikowski (1994). Both studies suggest that what appears to be, at aggregate (corporate) level, a continuous evolution, is in fact a series of individual and/or departmental decisions and adjustments. This adaptive activity is a situated process (Tyre and von Hippel, 1997) as it is linked to organizational settings: adaptation can be continuous (case 1) but also drastic and disruptive (cases 2 and 3) sometimes leading to no usage. Adjustments may happen at different phases of system usage and not only after system introduction (what Tyre and Orlikowski call “the window of opportunity”).

***A study conducted over a long period of time: discovering evolving factors across usage phases***

Secondly, a longitudinal study of CRM system usage reveals that individual usage behaviors change through time, and that users go through usage phases and sub-phases that are influenced by evolving factors (misfit types). A lot of activities and changes occur over the initial weeks of introduction but user behaviors still evolve months and even years after the introduction of the CRM system. Such a design definitively facilitates the tracking of misfit evolution, and the mapping of misfits against usage phases. Five years of field analysis is a long, sometimes painful (because dependent on users' availability) but necessary exercise to uncover user progression.



Fortunately, the researchers could work on a consistent user sample as only a few users left their company during the research period.

***A study conducted at the level of system features: following user progression more closely***

Thirdly, those three studies were designed to collect usage data at the CRM system feature level (Jasperson, Carter and Zmud, 2005). The researchers asked interviewees about the features they were using during each interview round to assess their progression throughout the post-adoption usage process, and link feature use with achieved business benefits. The challenge was twofold. Firstly, the researchers had to categorize features into categories to better follow their evolution and compare users. Basic customer data entry (e.g. demographic data) and query, advanced customer data entry (e.g. preferences), reports and dashboards, activity planning and tracking, and segmentation capabilities were the five categories used to group features of the three CRM systems. The first two categories were usually related to the adaptation phase, the third and fourth ones were used during the exploitation phase, while the last one was generally associated with the benefits realization phase. Overall, they indicated an increasing level of user sophistication. Secondly, the researchers had to systematically cross-check user self-assessment with system logs, observation, and colleagues' statements, a time-consuming task. It is only through analyzing usage patterns at a great level of details that we are able to find out what really happens with system usage and how usage gets impacted by external and internal factors. The richness of collected data is key in better understanding the intricacies of usage behaviors.

### 7.3. Implications for Practice

Being on time, on budget and within the agreed-upon scope does not automatically mean that the CRM system will be used to achieve the business results projected by stakeholders (Marchand, 2005). If users are reluctant to use the system because of a bad design or poor quality information, the time, effort and cost spent in project development and implementation will be forfeited. Unfortunately, most of the company's human and financial resources are usually allocated to the project phase and are assigned to other projects shortly after the system installation. The three CRM case studies of this research are no exception. The project lights were turned off several weeks or months after the initial CRM system introduction, and the majority of the post-adoption CRM usage process was with very minimum (case one) or no (cases two and three) management attention and guidance. Users and their supervisors were often left on their own, barely supported in their day-to-day tasks, and faced with a CRM system that did not evolve as much as their evolving business needs required. Organisations should constantly aim at resolving those post-adoption misfit problems by focusing on business process change (Gattiker and Goodhue, 2002), tailoring IS (Brehm, Heinzl and Markus, 2001), training their workforce (Ahearne, Jelinek, and Rapp, 2005; Hackney, Soto-Acosta and Colomo-Palacios, 2009), or a combination of those three resolution strategies (Soh, Sia and Tay-Yap, 2000; Hong and Kim, 2002). This lack of attention during the post-adoption usage phase (e.g. no change and business process management programs) justifies the following proposal:

**Proposal 1: organisations should devote adequate human and financial resources during the post-adoption CRM system usage phases to monitor usage, track the generated benefits, take corrective actions, support the user community in their daily operations, and plan future system development to ensure a proper IS/business alignment during the whole CRM system life cycle.**

This study also showed that CRM system usage progression and achievement were user and/or department specific. Within each organisation, users situated in different phases and sub-phases at the end of the research, while users

within the same department generally tended to show similar usage patterns. Having companywide CRM strategy and metrics is a critical success factor (Desisto, 2010). However, CRM system usage should be monitored at department level to uncover potential discrepancies in usage and generated benefits. Such a practice should help the organisation identify low performing departments and take department-specific corrective actions when required. The heterogeneity in CRM system usage across the three organisations' departments justifies the following proposal:

**Proposal 2: organisations should track CRM system usage at departmental level to make sure that their companywide strategy is deployed and cascaded consistently across all departments, and that each user department contributes to the success of the CRM initiative.**

This study revealed that individual trajectories were not always linear. Some users regularly progressed through the post-adoption phases to reach the benefits realization phase, while others only reached the exploitation phase, and some even stopped using the tool after a successful initial trial. Similarly, Markus, et al. (2000) show that success at one point in time may only be loosely related to success at another point in time. Therefore, project stakeholders must focus on the CRM system's effectiveness at each usage phase and for each department. The somehow erratic user progression noticed within each individual case study justifies the following proposal:

**Proposal 3: organisations should develop sets of metrics to track CRM system usage during all three phases. Phase and department specific metrics should be designed to appropriately monitor usage. For example, usage in phase one (adaptation) could be tracked using metrics such as the number of CRM system features used, while usage in phase two (exploitation) and three (benefits realization) could be monitored by user individual task productivity measures and by job achievements against targets, respectively.**

The above three proposals require that organisations systematically collect usage data over the CRM system life cycle, whether they are extracted from the system logs or gathered through questionnaires. It is therefore important to

assign a resource to perform this data collection and analysis task and report findings to project stakeholders during the usage phase.

**Proposal 4: organisations should assign someone (e.g. a project team member) to collect and analyze CRM system usage data during the system life cycle, and work out corrective action plans with project stakeholders.**

#### **7.4. Limitations of This Research**

Several limitations may affect this study's results.

Firstly, the researcher only studied one type of ES (CRM system), which limits generalization to other ES packages. Evidence from comparable studies and from the researcher's field experience suggests that two key factors might be CRM specific: user population characteristics and CRM system usability. The user population was mostly composed of sales and marketing staff. Although marketing staff usually followed the rules imposed by management, sales people were much more reluctant to use an ES, especially when their sales results were above target. Therefore, even in a mandatory usage environment (cases one and three), some sales users did not or barely use the CRM system. Users' behaviour would be totally different in an accounting department or in a production environment where a good part of the job is to use the ES. The second factor relates to CRM system usability. It never came up as an issue, although it is regularly mentioned as a misfit type in large ERP implementation sites. The reason may be twofold, and definitively needs further investigation. The complexity of CRM related processes in our three cases was much lower than that of large SAP projects described in previous research. Based on his CRM implementation experience and user feedback, the researcher considers the sales and marketing functionalities of the three studied CRM systems as simple to use, with the exception of the Siebel route planning functions (first case study). Although the discovery and learning of the new CRM system was sometimes painful for a few users, they only raised this issue in the first days or weeks, and never mentioned it afterwards. CRM systems usually provide a better user interface than back-office enterprise systems and Salesforce.com (used in cases two and three) is especially known by practitioners for its intuitive use. Users often referred to Salesforce.com usability as one of its key strengths,

but very rarely mentioned this aspect as influencing their usage. Overall, CRM system usability did not significantly impact usage, either positively or negatively.

Secondly, the researcher changed the data collection frequency after the initial case study, and decided to conduct interview rounds every four to six weeks. Although this change considerably improved data quality and usage analysis, it made the initial case not totally comparable to the last two, as the researcher initially did not track the evolution of individual users across the post-adoption phases based on monthly interviews but on users' memories. However, it did not seem to impact overall findings.

Thirdly, the researcher initially intended to study three implementation sites within the same organisation but, as previously explained, was forced to find two other implementation sites. Faced with a tough economic environment and therefore a scarcity of CRM system projects, he opportunistically selected two additional sites in two totally different fields. The original idea of having a common business case and environment for all case studies was abandoned. However, the validity and generalization of the common patterns discovered across those three cases (e.g. usage phases, misfit types, and user evolution) were strengthened by the heterogeneity of the implementation sites.

## **7.5. Implications for Future Research**

Firstly, a similar study on another ES type would be helpful to discover if CRM specific characteristics impacted this study's findings. The sales user population and the intuitive use of CRM systems are two features that might justify some differences, but other characteristics might be revealed through a comparative study with another ES.

Secondly, organisations should better understand when and how they should organise training during post-adoption system usage phases. This research showed that little attention was paid to the usage phases after the initial system installation. Knowing when and how to orchestrate user training sessions could help project teams deliver more benefits from the post-adoption CRM system usage phases.

Thirdly, a stream of IS literature has recently investigated feature extension by users. This CRM research did not find any new features developed and used by end-users in any of the three cases. However, a similar design (longitudinal and multiple case study, grounded theory, individual user based research) could be used to discover if CRM system functionalities are sometimes extended by the user population.

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