Implementing and using CRM to handle business relationships: intra- and inter-organizational effects in an Italian company

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Work in progress paper
ABSTRACT

The purpose of this paper is to investigate, on the one hand, the intra-organisational effects derived from embedding a CRM system in a firm and, on the other hand, the effects on this company’s customer relationships due to the embedding of this system in the organization. Theoretically we apply the resource network perspective (Baraldi, Gressetvold & Harrison, 2012; Håkansson & Waluszewski, 2002, 2007) based on industrial network theory (Håkansson & Snehota, 1995). Today CRM (Customer Relationship Management) appears to be a “buzzword” in the academic literature. In fact, CRM can be analyzed under different and divergent perspectives (Zablah et al., 2004). But considering our purposes we define it as a technical device interacting with people who input data and information inside an IT system to obtain processed information in order to handle customer relationships. In other words we consider the CRM as a socio-technical resource connected in the organization to actors-users who in doing activities on it can create effects on customer relationships. To address our purpose we deal with the following questions:

- How is a CRM system embedded within a company to support business relationships?
- How does the way in which the CRM system is installed and embedded within the organization affect how customer relationships are handled?

Empirically we employ an exploratory case study over an Italian company, Loccioni Group (Loccioni). The case analyzes both the installation of the CRM system within Loccioni, featuring the adaptations that led to embedding the system in the organization, and the effects derived from currently using CRM in managing six different customer relationships from the perspective of the supplier. Our preliminary findings suggest that the installation of the CRM system must not be considered as a linear process due to the technical problems which surface when the technology is embedded within the organization. Moreover as CRM becomes embedded as a socio-technical resource the users face problems in employing it related to loss of dependence, perceived monitoring and mistrust in data inputs from other users in the same host organization. Lastly, CRM affects specific customer relationships differently depending on, for instance, the duration of each relationship and the specific managers in charge of handling it.

Keywords: CRM, Business Relationships, Resource Interaction, Embedding, Implementation, Case study

INTRODUCTION

CRM (Customer Relationship Management) is a buzzword which is still under definition. Scholars from marketing, accounting and management in general have all different definitions
of CRM. Zablah et al. (2004) identify diverging conceptualizations of CRM: CRM as a process (see for e.g. Srivastava et al., 1999; Swift, 2000; Reinartz et al., 2004), CRM as strategy (Glazer, 1997; Davids, 1999; Verhoef and Donkers, 2001), CRM as philosophy (Fairhurst, 2001; Hasan, 2003), CRM as a technological tool (Shoemaker, 2001; Gefen and Ridings, 2002). In this paper we consider CRM primarily as an information technology (IT) tool and our purpose is to analyze its effects at two levels: (1) the intra-organizational effects derived from embedding a CRM system in the firm that installed and uses it, and (2) the inter-organizational effects on that firm’s customer relationships, and specifically how CRM impacts how the firm handles these relationships. Our study is thus concerned with understanding how a focal CRM system is constructed and embedded in a using company and which contribution it provides to handling customer relationships, viewed from the perspective of the supplier. To shed light on these facets of CRM it is helpful to apply an industrial network perspective (Håkansson and Snehota, 1995).

More specifically, we will consider the IMP literature focusing on how IT systems are embedded and used in an industrial network context (e.g., Baraldi, 2003; Baraldi and Nadin, 2006). As a way to capture and describe the embedding process of CRM we will refer to the “resource interaction” perspective (Håkansson & Waluszewski, 2002; Baraldi, Gressetvold & Harrison, 2012) and to the resource-interface concepts (Håkansson & Waluszewski, 2002). It means, specifically, that we will take a perspective on CRM that considers it as a social-technical resource which is used in combination with other resources (Baraldi, 2003). To accomplish our purpose we have conducted a case study based on an Italian medium size firm called Loccioni Group (Loccioni) which in 2005 started to develop and introduce a CRM system within its organization. The paper is organized as follows: after a theoretical background, we present our methodology. Then we describe the case study and provide a preliminary analysis of the findings emerging from the embedding process of the CRM in Loccioni.

**THEORETICAL BACKGROUND**

This section reviews first the CRM concept as it is in general addressed in literature highlighting barriers and advantages in its implementation; then we introduce the resource interaction perspective to approach CRM as a socio-technical resource. Last, we will present key concepts about customer relationships taken from the IMP tradition, which we need as we are interested in the embedding of CRM and its impact at inter-organizational level.

Defining CRM and its threats and opportunities

There is an ongoing debate in literature about what CRM represents (Zablah, 2004; Payne and Frow, 2005), what are the main issues for companies in adopting it (Bull, 2003) and what could be the benefit in implementing it (Landry et al., 2005; Campbell, 2003). There are also a lot of definitions about what CRM represents (Morgan and Hunt, 1994) even though as highlighted by Campbell (2001) and Jayachandran, (2005) “technology” is an important element in CRM processes common to all these definitions.

Zablah (2004) has presented an exhaustive literature review aimed at providing a common definition of CRM, and five dimensions have been considered as necessary to refer to: CRM could be viewed as a process, strategy, philosophy, capability or technology. Building on these dimensions, Zablah (2004, p. 480) come up with the following conceptualization: “CRM is an ongoing process that involves the development and leveraging of market
intelligence for the purpose of building and maintaining a profit-maximizing portfolio of customer relationships”. Another relevant contribution in CRM literature by Payne and Frow (2005) not only positioned the CRM concept in marketing, but also emphasizes the importance of CRM implementation (technology) and points the related people or users issues as an area where further research is advocated.

According to Bose (2000) CRM can be defined in IT terms as “an enterprise-wide integration of technologies working together, such as data warehouse, Web site, intranet/extranet, phone support system, accounting, sales, marketing and production”. Hedman and Kalling (2002) and Brady et al. (2002) view CRM as a marketing IT tool that helps companies in managing customer relationships. IT has affected how companies collect, store and share information about customers and competitors (Glazer, 1997), which clearly impacts on how customer relationships can be managed.

A critical aspect when CRM is adopted by an organization leads to the potential pitfalls and opportunities concerning its implementation. For instance, (Homburg, 2000) assumes that CRM implementation affects the organization in terms of people’s way of working, and this could create resistance during its adoption process. For instance, sharing customer information within the organization, which constitutes one of the potential positive effects of CRM, is not always accepted by sales people as a good practice. As a consequence they may consider the CRM not useful because they lose the control of the relationship itself while managers can monitor and control each piece of information in the relationship. Moreover, sales personnel indicates CRM as a time-consuming tool mainly for data input activities so that the efforts in putting information in the system are not balanced by the output received back. Therefore, successful CRM initiatives require that employees view the CRM system as a useful tool in organizing activities and resources to handle customer relationships, and that they become committed to the system. An exhaustive literature review about the CRM implementation gaps is presented in the article by Zablah et al. (2005), who recognizes that the limited technology acceptance among CRM users can influence its adoption.

Turning to the opportunities of CRM adoption, for instance Ryals (2005) shows that CRM works in terms of providing better firm performance when managers focus on maximizing the value of the customer. According to Berkley and Gupta (1994), CRM can improve customer service reliability and service monitoring while Minthas et al. (2005) stated that companies implement CRM systems to make more efficient use of customer information within the organization. Since CRM software has the potential to facilitate the process of gathering customer data, it could be useful for companies in providing customized products to the market (Rigby et al., 2002). Therefore, a tool such as CRM to assist the management of customer relationships is important, especially when relationships evolve (Lindgreen et al., 2006).

From the previous definitions and review of threats and opportunities in adopting CRM we stress that there are at least two fundamental elements that constitute a CRM process and that companies need to align: technology and people. Technology in CRM applications plays an important role because it allows the system to store, process and spread customer data, so that it can be used as relevant information by managers. A CRM system includes basic elements such as databases, analytical tools to create, evaluate and manage information about customers, and decision support systems such as data mining (Daghfous and Barkhi, 2009). The other building block is constituted by people, as stated by Chen and Popovich (2003) who claim that individual employees are the building blocks for handling customer relationships.
For our scope, it is possible to outline the view of CRM as a “device” interacting with the people who input data to get back “processed” information, which they need in order to handle customer relationships. In this definition the technology element is dominant but not the only one since the “interaction” among technology and people constitutes the whole process.

Treating CRM as a socio-technical resource

In order to address our research purpose we now look at CRM as an IT system and, following the IMP tradition, we consider it as a “socio technical resource”, within the frame of the 4Rs resource-interaction model1 (Håkansson & Waluszewski, 2002; Baraldi, Gressetvold & Harrison, 2012).

The 4Rs resource-interaction model (Håkansson & Waluszewski, 2002) is concerned with combinations and interfaces between resources that describe how one or several resources are embedded in each other (Baraldi, Gressetvold & Harrison, 2012). Resource interfaces (Håkansson & Waluszewski, 2002: 190-200) are the contact points that indicate how and how much two resources affect each other. This model is based on Penrose’s (1959) idea of “resource heterogeneity”: each resource value depends on how resources are combined with each other. Therefore, each resource is shaped and affected by the other resources through a “resource interaction” process that is not predictable. Considering CRM as “socio technical resource”, means that we will focus on social, technical and mixed types of interfaces around the CRM system in focus.

As previously stated, CRM can be viewed as a device interacting with people who put data into it to obtain processed information applicable to handle customer relationships. Thus a CRM system interplays with other resources involved in managerial tasks, such as information, people, business relationships (the interaction between these three resources and the CRM outline social interfaces), and other IT systems (this interaction outline the technical interface). As recognized by Baraldi (2003; Baraldi and Waluszewski, 2005), in order to produce their effects IT tools, such as CRM, require a connection to other facilities and human intervention. Then CRM acts like a facility (F) that transforms other resources, or more precisely elaborates information to generate digital information (Baraldi, 2002; 2003): in other words CRM gathers, processes and distributes information to sustain users’ performance of tasks (cf. Baraldi, 2003).

By using the 4Rs model it is possible to investigate how CRM interacts with social resources such as customer relationships and with individual users, who can be considered as intermediaries for the effects of CRM on other resources. The model allows not merely classifying the resources but also penetrating in how they interact among each other and affect each other (Baraldi, 2002). In this sense a CRM system is not an independent technological platform nor a passive executor of tasks, but a facility that by interacting with the other resources can process and diffuse customer information within and outside the company. Hence by interacting with users CRM could be itself changed in its features (improving its

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1 The 4Rs model (Håkansson & Waluszewski, 2002; Baraldi & Bocconcelli, 2001) categorizes resources in 4 typologies: Products (Ps) that are technical artifacts exchanged between companies, Facilities (Fs), for instance IT systems that operate on data and information, Business/organizational Units (BUs) which are immaterial type of resources (skills, personnel, etc) and Business/organizational Relationships (BRs) that are another immaterial type of resources that bind firms together, emerging from long term interactions (Håkansson and Snehota, 1995).
performance) and it could create effects in the way of the relationship is managed. In fact, how the CRM system interacts with the surrounding structure of other resources determines its use (Baraldi, 2003; Ingemansson, 2011).

Applying the theoretical tools and concepts of this model is useful to accomplish the paper’s aim of discovering how a CRM system is embedded within an organization and its impact (interaction with other resources) on customer relationships in terms of tangible and intangible effects (Baraldi and Waluszewski, 2005).

Specific features of customer relationships

The development and the management of customer-supplier relationships have been conceptualized by several researchers belonging to the IMP tradition (see Ford, 1980; Håkansson, 1987). Successful management of a customer relationship involves both an analysis of customer behavior by the supplier and the awareness of the customer’s attempts to manage the same supplier relationship (Ford et al., 2003, p. 67). The customer relationship is moreover complex and evolves over the time as well, for instance due to changing customer needs triggered by technology dynamics (Selnes and Johnson, 2004).

Håkansson and Snehota (1995) stress the complexity of relationships, due to the presence of many simultaneous types of exchanges, connections and dependencies between the parties, at social, economic and technical level. For instance, companies exchange artifacts, money, information and knowledge. But the key indicator of a business relationship is the notion of adaptations, referring to the necessary changes in routines and technologies, including investments, made by both parties for the sake of the relationship. The complexity of customer relationships can be defined by looking at certain dimensions such as its intensity, which Ford and Rosson (1982) define in terms of the level of contact and resource exchange between the firms. Moreover complexity involves interactions in which the supplier provides an offering to deal with specific problems and uncertainties of a customer (Ford et al., 2011). Other key traits of business relationships are their duration and continuity (Håkansson and Snehota, 1995), even if they can vary from be long established relationships with numerous daily contacts to relationships are characterized by spot interactions. The volume of business among parties is another important dimension, with some relationships representing a large proportion of the supplier’s total sales while others covering lower volumes.

Since our paper analyses a system such as CRM which is expected to improve customer relationships, we focus on two specific research questions:

- How is a CRM system embedded in the organizational context to support business relationships?
- What happens to a business relationship when a firm introduces a CRM system in order to handle it?

These research questions stem from our interest in understanding if the embedding process of the CRM system has effects in the decisions and actions of the users who are involved in managing customer relationships.”

METHODOLOGY

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A case study approach (Yin, 1994) was adopted as it enables us to investigate complex questions such as how the focal IT system was constructed and embedded within the Loccioni organization, including its effects on internal and external processes involving customer relationships. Moreover, the case as is presented in this paper has been subjected to several rounds of analysis to reach reliability (Dubois and Gibbert, 2010). Studying the adoption of CRM in Loccioni is interesting mainly because there is a lack of research that investigates CRM adoption in medium size firms that operate in b2b setting (Papastathopoulou, 2007; Peltier et al., 2009). SMEs in b2b context often have scarce resources to manage specific business relationships and CRM could be a potential solution that supports KAMs. However barriers absent in large companies could be present when CRM is adopted and deserve to be specifically investigated.

Secondly, CRM provides also for small and medium firms opportunities (Alshawi, 2011) as for largest companies, but CRM adoption has to be cope with several problems. Hence, considering the embedding of Loccioni’s CRM could be useful to contribute to the academic debate on the adoption of CRM in SMEs.

This paper illustrates the process of embedding of CRM through a combination of participant observation and action research (Levin & Greenwood, 2001) and we were granted access also to the very system while being constructed and implemented.

Data collection and data analysis

The data for the study was collected over a period of 3 years, between 2005 and 2008, by using several sources of data both primary and secondary. Furthermore one of the paper’s author was directly involved by means of direct participation in the implementation as well utilization of the CRM system:

In this case study data was collected by the following steps. First, we analyzed several internal reports featuring software specifications, business processes, and the human resources involved, as a way to understand the entire corporation’s information systems. Then as second step were in-depth interviews with key account managers (KAMs), employees from the sales department, the communication and marketing manager, the R&D manager, and the IT manager in order to understand opinions about the CRM project in general. Totally we conducted 46 face to face interviews between 2005 and 2006 of between 30 and 45 minutes. In addition numerous project meetings and briefings were attended during the whole time project: for each meeting notes were written to report the contents.

The last step was interviewing Loccioni’s key account managers in order to investigate the effects of CRM on the relationships managed by them. This round of interviews was carried out in 2008, when the CRM system was implemented and it started to be adopted by KAMs. Six customer relationships were selected according to criteria which made possible for us to go deeper into intra- and inter-organizational effects of CRM. As valuable criteria in driving the choice of customer relationships we considered first the complexity of the relationships in terms of its intensity (Ford and Rosson, 1982), level of contacts and volume of business. Following Håkansson and Snehota (1995) we also considered key dimension such as the time duration and continuity.

We collected data from five KAMs of Loccioni’s in charge of managing the six customer relationships selected (two customer relationships were managed by one KAM) by means of
an e-mail questionnaire which was divided in two sections. The first included general questions about the origin of the customer relationship and its specific features such as economic volume of business exchanges, customer’s personnel involved in the relationships, and contacts frequency. The second section of the questionnaire was focused in understanding the KAM’s interest and commitment in adopting CRM to handle the customer relationships. The questions were aimed to discover mainly individual KAM’s consideration about the usefulness of the system. After having received back questionnaires from the KAMs we arranged short individual meetings to comment with them results and to ask more information where the answers were not exhaustive.

By means of the 4Rs model we analyzed our data, as it represents a useful way for categorizing resources and analyzing their interactions and interfaces. The model has been used as a method to investigate how related resources “co-produce” the CRM and how the CRM embedding affects the way in which customer relationships are handled.

THE CASE OF CRM AT LOCCIONI: HANDLING SIX CUSTOMER RELATIONSHIPS

Loccioni Group (Loccioni) was founded in 1968 when Enrico Loccioni started his activity in the field of electrical distribution plants. In 1974 the first company of Loccioni’s Group named General Impianti was founded and 6 years later was added AEA, a firm specialized in tests for home appliances and cars components. Loccioni operates now through different business units relying on core competencies within testing and quality control systems, integrated solutions for industrial automation and ICT. Recently Loccioni also started producing tailor-made solutions to face environmental and eco-sustainability issues (see Baraldi, Gregori & Perna, 2011). Loccioni’s core competencies are applied to solutions for customers in several vertical markets such as automotive and home appliances producers, ICT, health, and environment. Loccioni’s turnover in 2011 was 72 million’s euro, it employed 356 persons and in average the 5% of the total turnover is invested in R&D activities. Loccioni’s systems are produced in two manufacturing plants and sold directly to the customers without any intermediation.

The CRM project at Loccioni Group

The CRM project was launched when the president and the management decided that it was necessary to explore the possibility of adopting CRM because they viewed Loccioni as a customer-centric company. Therefore, CRM was seen as a strategic possibility, rather than a solution to specific problems: the goal was to offer employees an IT system that would be better than the previous one in managing customer information. The project started officially in January 2005 by involving also academics to complement Loccioni’s knowledge on organizational and marketing issues.

A project team was created including 8 persons: two academics, the managing director, and 5 employees from marketing, accounting and IT. The marketing and communication manager was in charge of the project team. The duration of the whole CRM project after the “kick-off” meeting was planned to be 2,5 years, including the initial tasks of defining milestones, assigning responsibilities and establishing training sessions: however, due to several unexpected events, the project development took more than 3 years. The creation of the project team was the outcome of the first phase and it was completed in around two months. During this period the project team’s first activity was to carry out a survey among employees in order to outline their propensity to use IT tools in managing sales and marketing
The survey showed high-level of interests by personnel to adopt CRM software (during the survey people were informed about the significance of CRM and the importance of managing business relationships by using ad-hoc software). In this step it was decided to not source CRM from software vendors but to realize an in-house tailored solution because one of Loccioni’s business units was specialized in implementing IT business solutions.

The project team moved to the second step around March 2006 when they started to design the structure of the CRM package together with informatics engineers from the IT business unit, sharing with them also the feasibility analysis of the project. All the types of customer information which the company needed in order to better manage long-term relationships were analyzed. All the contact points between Loccioni and its customers were mapped out. All information about the customers previously hosted by the marketing database was updated. Moreover in this step the project team worked hard to design the new graphic user interfaces and to create new terminology including words like “contacts”, “relationship”, “network”, “campaign”, “report”, etc. This step lasted around 10 months.

In January 2007 the informatics engineers started the configuration phase: this stage of the project addressed the translation of the previous design process outcomes into the CRM system. One of the main purposes of the configuration step was to connect all the existing software containing customer contacts (telephone, mail, e-mail, meetings, etc) in a single database while avoiding that a customer relation was duplicated in several data repository. The CRM system was connected to the existing ERP package, but this was a difficult task and the engineers had to develop special communication software. Moreover the CRM package had to communicate with the company’s Intranet and with the company’s website as well: to do that ad-hoc software interfaces were set up. Another technical effort made by the IT engineers was to link the CRM with a Business Intelligence system, that is a software used in identifying, extracting and analyzing business data. It took 12 months to configure the architecture. In this period, another project activity was to capture the information flow into the CRM’s database. The aim was to process data by applying the CRM system to deliver information to the users and improve their decision-making.

In January 2008 started the testing phase, which took about two months, one more than the scheduled, because of unexpected troubles. Firstly the quality of the in house developed system was not satisfactory and demanded additional support. An even larger problem concerned the quality of data because it was not planned to create an automatic control procedure for the data entered into the system: when registering a new customer the user should check if the company was already registered to avoid a double registration. Fixing this specific problem required one extra week of programming. When the testing and setting phases of the CRM project were concluded, the training and the teaching sessions started. Here it became clear that it was hard for the project team to fit with the personnel busy daily work agenda. During the training period, around one month, other few unexpected problems appeared in the CRM. An issue was that the system did not give the expected benefits because it contained incorrect information. Therefore a lack of trust reduced the pool of users. A common comment by personnel was “the CRM in the actual configuration is useless”. Before launching the CRM more tests than usual for achieving complete reliability were carried out. The official launch of Loccioni’s CRM was in May 2008. The rationale for this project was offering to employees a well-organized CRM software, for only internal use, in order to manage customer relationships.

Figure 1: Chronology of the CRM project, 2005-2008
Features of Loccioni’s CRM, utilization and related processes

In May 2008, when the CRM was launched, personnel started to insert data in the system in order to use it to manage customer relationships. Demographic data about customers come to CRM from the Intranet, CRM receives financial data about the customer from the ERP and sends this data back to it updated; another information flow exists about after-sales information such as customer complaints. The resulting IT infrastructure around the CRM system comprises many heterogeneous pieces that were combined or even literally “stitched” together, when Loccioni’s IT department designed and introduced several new bridging software.

Regarding the current use of CRM, individual users can access the system via Loccioni’s Intranet. There are at least two different situations in how CRM is use at Loccioni (see figure 2).

**Situation 1:** User A belonging to the Marketing BU inputs data into the CRM. This arrangement depends on Loccioni’s internal allocation of responsibilities, according to which Loccioni’s Marketing unit is in charge of both collecting general market and customer-specific information, as well as of communicating with the market via campaigns and other channels. The CRM transforms data inputted by users into information that will be used again by A to handle the relationship. After A has received information from the buyer he will put it into CRM that give her back “processed” information.

**Situation 2:** User A puts data into the CRM, but the information produced by the system is used by user B belonging to the Sales BU. This unit includes especially key account managers (KAMs) who are responsible of handling some specific customer relationships and typically have been in charge of doing it for several years. User B will use this information to conduct specific actions to improve the buyer relationship, and then she will input back in the CRM the information about the reactions received from the buyer. This information might be used by B itself or by other users (for example A).

Figure 2: Information flows in using CRM at Loccioni
The information architecture portrayed in figure 2 implies that all information collection, access and retrieval are centralized around the CRM system. There are also different user profiles, ranging from top managers to managers from marketing and sales department, from key account managers to personnel from the R&D and post sales department. These different profiles entail different degrees of authorization and the possibilities of executives to access all queries and operations made with the system by lower-level users. Therefore, the installation of the CRM system at Loccioni implied important changes in routines and processes for handling customer information. In fact, before the CRM came, all employees used their own methods to manage customer data (personal notes, commercial software, etc). Personnel especially from the sales department, namely key account managers (KAMs), hardly accepted CRM because it made them feel controlled by the system itself or by the management. Between 2005 and 2008 were 19 the KAMs connected to the system in charge of putting data and using it for conducting sale activities. Each of them had to organize around ten business relationships with customers, in average more than 200 different relationships were managed every year.

With the new system in place, information is extracted from the CRM system and exchanged between personnel involved in customer management via the system. Therefore, CRM has assumed a central function in the collection, administration and diffusion of relevant customer information among users. This centrality has greatly increased the visibility and requirements on the first activity in this internal process, namely data input, which before was an informal and ad-hoc activity. Now data input must be performed according to certain rules and standards, which made some users reluctant to use the system, at least initially. After the system gained acceptance, the information outputs are now typically used by marketing and sales personnel to obtain a clear customer’s portrait in order to further develop interactions: information such as financial performance in relation to a customer, sales orders, complaints, contacts frequency are the most important extracted from the CRM system.
Loccioni’s CRM can help managers and KAMs in organizing data and information. Looking at its features, it can store data and enables users to access sales information at the right time. For example, KAMs are encouraged to putting data into the CRM system about the respect of sales forecast by each customer they will manage within the year. Hence, the CRM can give back to the user the outstanding balance of the sales activities planned. Other relevant CRM’s features consist on customer segmentation regarding sales performances and market shares. Moreover, the communication with the customers is recorded and added to the customer’s contact database in order to be analyzed to plan marketing activities.

Six main customer relationships of Loccioni’s

We now present six customer relationships and search for the effects deriving from using the CRM system on how these are handled by Loccioni. The table below presents an overview of these relationships, including their starting year, level of continuity, importance for Loccioni in terms of sales volumes, as well as customer’s reactions to Loccioni’s offers. Customer data for all these six relationships was expected to be stored on the CRM system, as a key tool available to Loccioni’s KAMs and other marketing and sales personnel for handling each of the six relationships.

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<th>Relationship</th>
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Loccioni and ALFA

The relationship was born in 1985, when the firm Weber asked Loccioni to supply carburettors test benches for its manufacturing plant located in Bologna, Italy. Starting supply in 1986 Loccioni entered in this way the automotive market for the first time. Weber turned into ALFA at the end of 1989 and started several R&D projects with Loccioni entailed close interactions. The relationship has been characterized by a high level of commitment and trust, without particular problems. In more than 20 years of relationship actually ALFA is among Loccioni’s most important customers in terms of profitability and purchasing amounts.

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2For confidential reasons we named the six companies as ALFA, BETA, GAMMA, DELTA, EPSILON, and ZETA
3 ALFA designs and produces high tech systems for the automotive sector. With a turnover of € 4.5 billion in 2009, about 32,000 employees, 77 production units, 11 R&D Centres and 26 Application Centres, the Group has a presence in 18 countries.
Moreover ALFA purchased testing systems for automotive components from Loccioni also for its manufacturing plants in South America. According to the KAM of ALFA, CRM has not been useful to handle the relationship itself. It can be viewed just as a database in which financial data about ALFA are stored and its usefulness consist of being a “data warehouse”. Moreover the KAM has considered the CRM as a “time demanding” tool because it requires time to input data.

Loccioni and BETA

In 1985 Loccioni was looking for customers interested in buying a new testing system for measuring quality of washing machines. Loccioni took the initiatives and got in contact with European home-appliances producers by organizing in its headquarter a marketing-sales event to present innovative testing systems technologies developed for white-goods producers. Three engineers from BETA attended the event and were positively impressed by Loccioni’s technology. Back in Germany they started to discuss the opportunity to involve that small company (Loccioni) and its technologies in their washing machines business. In 1986 BETA bought from Loccioni an automatic test system for washing machines that was installed in BETA’s manufacturing plant in Germany while in 1987 BETA purchased other 12 test systems more. The relationship between Loccioni and BETA has been intermittent; it is possible to consider two significant periods of interaction considering the first between 1984-1989 and the second between 2003 and 2007 when BETA started again to buy system controls from Loccioni. Turning to the CRM’s effects on the relationship with BETA, according to the KAM no immediate tangible effects appeared. The CRM system just helps people in organizing data and tracing it. The KAM felt it was really difficult to use the CRM as a way to better approach WE because no strategic information are held in the system.

Loccioni and GAMMA

The business relationship between Loccioni and GAMMA started in 1989 when a Loccioni’s supplier (Siemens Group) suggested that GAMMA was looking for suppliers able to rebuild several railways stations: to develop this business relationship an important role was undertaken by a Siemens’s engineer in connecting Loccioni to GAMMA. Loccioni was selected to realize an automatic tracking system for an industrial plant. In 1995 Loccioni was again involved directly by GAMMA in developing tailor ed solutions for the supervision systems of small plants in the railways stations. The relationship became closer starting from 1995. Even though Loccioni would like to have GAMMA among its most important customers the whole interaction process has been painful, with large investments made by Loccioni in keeping contacts with GAMMA. An important characteristic of the business relationship has been its discontinuity and “intermittent” affairs. The GAMMA’s KAM considered that CRM beyond having an interesting interface was just another type of IT tool which Loccioni’s managers have to use. He did not see any positive effects for relationship

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5 BETA manufacturers and markets home appliances. The company is based in Varese (Italy) and it employs around 6.000 people.
6 GAMMA is the leading Italian railway operator, with trains for long and medium distances routes. It employed around 54.000 people with a turnover (2011) of about 7,8 billion of euro.
management because he did not trust using IT to manage customer relationship. The GAMMA’s KAM, was a senior person and was uninterested in adopting any software and IT in general to handle relationship: he viewed only his own skills as useful to do that.

Loccioni and DELTA

In 1989 Loccioni had the first contact with DELTA and has always been one of the most important suppliers to this firm when it comes to quality test benches for gasoline engine’s components and the business relationship was very tight since the beginnings. When of two employees of ALFA, a firm with which Loccioni had already a relationship, received DELTA’s support to start an own venture they also chose Loccioni as supplier. After building good reputation with DELTA Loccioni could contact DELTA’ headquarter in Germany, which later allowed Loccioni to start the supply of testing benches for components also in one of DELTA’s most important manufacturing plants in China. To sum up, this strong relationship led to DELTA becoming Loccioni’s most important automotive customer, accounting for about 25% of Loccioni’s automotive turnover. DELTA’s manufacturing plants at Regensburg (Germany), Limbach (Germany), and Pisa (Italy) have strong connections to Loccioni, due to DELTA’s production of gasoline and diesel injectors. Loccioni mainly provides these three plants with quality testing systems. Here the CRM system has been considered by the KAM useful, but just a small part of the available information are considered helpful in managing the relationship with DELTA. Most of this information concerned the volume of business exchanged with DELTA so allowing the manager to be regularly updated about the transactions done.

Loccioni and EPSILON

Loccioni started to deliver IT solutions to the EPSILON group in 1997, thanks to a contact opened by one of its supplier, a small consultant firm. Loccioni viewed the opportunity via EPSILON to enter into a new market segment, namely luxury goods producers. After several months of discussions and negotiations Loccioni was selected officially as a EPSILON supplier and could deliver a structured wired system in one of EPSILON seven manufacturing plants. Since 1997 Loccioni has received several assignments from EPSILON such as building of a wireless network and IP telephony, but from 2005 the number of contacts and revenues from this customer stagnated. According to Loccioni’s key account manager one of the reasons is the small budget that EPSILON invest in IT infrastructure. Compared to the past, according to the EPSILON KAM, Loccioni has now a useful marketing tool represented by the CRM system. Shared information about the customer could be easily processed and used to better prepare, for example, a meeting with the customer. But the shortcomings of the system consist in the lack of reliability of the information contained in the CRM itself, as well

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7 DELTA is one of the leading global automotive suppliers. With its three divisions – Chassis & Safety, Powertrain and Interior – it achieved sales of approximately €16 billion in 2010. The Automotive Group employs around 87,000 people in more than 170 locations worldwide.

8 EPSILON is the operating holding of a group which is a leading player in production and distribution of shoes and luxury leather goods. In 2010 the group sold for more of € 700 million and had 2,800 employees.
as in the delays in receiving back information from the system. Therefore, there are no direct
effects that can be identified on the managing of EPSILON relationship, even if the KAM
underlines the potential of the CRM system as a marketing tool for the future.

Loccioni and ZETA\textsuperscript{9}

In 2007 Loccioni received from the Italian division of ZETA, a Chinese company producing
home-appliances, its first order within an R&D project for quality control system for
refrigerators. Loccioni was looking for new potential home appliances producers and it started
to analyze the Asian market where one of the leading companies was ZETA group. Since the
90s ZETA started to build own factories in South America, Africa, Middle-East, and Asia and
also purchased a factory near Padua, Italy in 2001. The initial contacts with this factory were
taken by Loccioni’s marketing office who proposed solutions to the purchasing manager of
the Padua plant. In spring 2007 a meeting was arranged to discuss R&D projects for quality
analysis of refrigerators (thermovision technology). ZETA R&D personnel showed great
interest and in the summer 2007 Loccioni started to develop a tailored solution for this new
customer. The implementing phase of the project started in the winter 2007 and in early 2008
the whole system was delivered: via the relationship with the Padua plant, Loccioni’s R&D
manager was then introduced to ZETA’s headquarter in China.

The KAM of ZETA, one of Loccioni’s younger KAMs, considers CRM as a really helpful
software: it provides useful data and information to handle this business relationship. For
example, by means of specific information about the ongoing activities and planned
investments of ZETA, which the marketing personnel has put in the CRM system, the KAM
has been able to start interactions with ZETA’s managers. So the effects of CRM on the
business relationship with ZETA were clearly evident mainly during the relationship
development stage, when it was important to have real time customer information with the
aim to organize meetings. In other terms, by providing accurate and well structured
information about ZETA CRM has contributed in supporting the KAM in managing the
relationship itself.

CASE ANALYSIS AND DISCUSSION

We now address in our analysis our two research questions concerning the embedding of the
focal CRM system, both at intra-organizational level, that is, inside the using organization,
and at inter-organizational level, that is, considering its effects on the customer relationships it
is expected to influence.

Intra-organizational embedding of Loccioni’s CRM system

Intra-organizational embedding can be analyzed by considering organizational interfaces
around the focal system, particularly how the new system relates to users routines and
organizational processes.

\textsuperscript{9} ZETA is a Chinese multinational consumer goods and home appliance company founded in 1984. As of 2008 it has
surpassed European rivals as the world’s top refrigerator producer in terms of sales. In 2008 ZETA sold for $ 21 billion
employed 70,000 people.
Organizing the CRM system within Loccioni initially led the company to decide which kind of customer information to collect, which users had to insert that information and when, what they should do with it: for example, how should users utilize that information to manage a customer? Structuring these processes was demanding and time consuming, and also created the premises for the organizational embedding to follow, including barriers and possibilities for it.

It was therefore pivotal

The changes in routines as a consequence of the CRM installation in the organization can be considered as substantial. Especially the direct users of the system had to change their way of handling customer data: from a very heterogeneous set of individual approaches, with informal notes and ad hoc software solutions, to a common set of templates and steering procedures which gave a lot of power and control over the workflow to the system itself.

It is not strange then that part of Loccioni’s personnel reacted negatively to CRM, especially the KAMs who felt supervised and controlled (by the system and their superiors) and that they were giving up their flexibility in handling customers. In fact as the CRM system became embedded within Loccioni’s organization some activities, such as data input, required standardization and control, becoming more scrutinized and evident to everybody than in the past.

Therefore some employees were reluctant, at least in the first period of using the system. In particular, as evidenced by the using Situation 2 reviewed in the case study, KAMs not only became more supervised and controlled by the system, while losing their flexibility in how to handle and obtain customer information, but they also became all of a sudden dependent on somebody else for a key input in their work. Marketing personnel could for instance change key customer-related information about a KAM’s “own” customers without informing the KAM: this made KAMs wary and suspicious about what information was to be found inside the CRM system, a system where double entry of the same meeting could exist. Basically, KAMs did not trust as much the system as their own personal way of keeping track of customer information.

Inter-organizational embedding of Loccioni’s CRM system

Investigating the effects of CRM on Loccioni’s business relationships is challenging. All customer relationships examined, except that with ZETA, pre-existed the installation of CRM. Even if all these relationships have been affected somehow, it can be very difficult to trace these effects. Generally speaking, the CRM system processes information that can be then utilized by Loccioni’s personnel as a better support in managing the relationships than the previously scattered, ad-hoc and sometimes inconsistent information. However, the case studies reveal that there are no direct effects and interfaces from the CRM system and each single customer relationship. These effects are mediated by effects at intra-organizational level, i.e. on Loccioni’s internal routines, personnel interests etc. For example, more timely and updated customer information enables Loccioni’s personnel to be more responsive and improve coordination in the relationship they handle.

Looking more precisely across the single relationships, the first noteworthy finding is that the start date of a relationship seems to impact considerably the effects of CRM on it. CRM has been really a source of useful information for personnel who has approached a new customer, such as ZETA. This customer relationship was born in 2007, when the CRM system was
almost ready. Therefore, almost all the information about this customer was collected for the first time, instead of being scattered in many places in Loccioni’s organization. Thus marketing information about ZETA such as turnover, number of employees, the localization of the manufacturing plants, and number of contacts (meetings, e-mail exchanges, phone calls) could be collected within the CRM system. This was an important pre-condition for CRM to become really useful to keep track of interactions with ZETA and produce benefits for users in supporting the development of the customer relationship. In the case of the Loccioni-ZETA relationship CRM has provided KAMs information that enabled them to interact more efficiently with the counterpart. For instance the ZETA KAM received from CRM information about ZETA’s needs which was inputted in the system by Loccioni’s marketing office and was highly satisfied by the quality of that information as a strategic asset in better understanding ZETA’s needs.

This example highlights that the key to the creation of inter-organizational effects for CRM is a well functioning intra-organizational process inside Loccioni, where different systems users (namely KAMs and marketing personnel) trust each other’s inputs into the CRM system. If this intra-organizational embedding does not happen, it is even more difficult for CRM to create positive external effects. But not producing any effects at all – basically not using it by KAMs – is probably a better option than having that IT tool produce negative effects on the customer relationship. It is probably this fear of negative effects on their customer relationships that restrains some KAMs from using CRM.

In fact, the CRM system has a much less positive contribution in supporting Loccioni’s long lasting customer relationships. In the BETA case the KAM might be interested in using the CRM but the lack of strategic information about the company has been considered a sufficient reason for not using the system. BETA represents one of the most important customer for Loccioni’s home appliance business and since the first interaction in 1986 Loccioni has collected information mostly about its R&D plans and product development projects. But the KAM consider CRM not so helpful in supporting the particular rationale of the BETA relationship, which focuses on the joint development of R&D projects.

Turning to the relationship with DELTA, another important and complex Loccioni’s customer but in automotive business, CRM is not applied in managing the relationship. The KAM considers CRM only helpful in providing basic of information such as the historical volume of business with DELTA. But this information is not used in setting up further plans with the customer. As a consequence CRM has been considered simply as a datawarehouse. A particular reason lies behind the lack of use of CRM by the KAM of EPSILON: the information inside the system has been considered as unreliable and the CRM as too time-consuming in having back information from it.

Data and information about the customer relationships started between 1985 and 1997 and were moved into the CRM system in 2006. But the KAMs’ use of CRM in managing these relationships was weak, because they had historical information about these customers which they had created independently from the system. This limits the possibility for managers to handle the relationship by means of CRM. According to KAMs the information provided by the CRM system about these relationships was useless to support further relationship development. Rarely the KAMs of ALFA for example put information in the CRM, instead often they distributed information via memo or protocol that tends to disappear before they are “digitalized” inside CRM. This is not an unusual situation when it comes to registering
information on complex processes into IT systems as shown by Baraldi and Waluszewski (2005) for IKEA product managers.

The lack of use of CRM in the relationship with GAMMA is particularly interesting for another reason: the KAM of this customer had no interest and involvement in the CRM process, mostly because he was he belongs to the “old guard” and was older than the other KAMs. By contrast, the KAMs of ZETA were younger and much more motivated in using the CRM.

To sum up, the differences in how the CRM system affects the examined customer relationships strongly relates to their age in relation to the introduction of the system and on to the positive or negative attitudes of the respective KAMs towards the system, which in turns relates to the experiences and interests of each KAM.

Under certain conditions the CRM demonstrates usefulness, especially when the user is young, technology confident and the relationship appears to be not complex. Otherwise, several barriers could emerge leading to a much less degree of use of the CRM system.

**CONCLUSIONS**

Our paper’s purpose was to investigate both the intra organizational effects derived from the embedding of a CRM system in a firm and its effects on six of this company’s relationships. Based on the analysis above we identified the following effects or lack of effects, which can contribute to research within the IMP tradition.

The most evident effects are at the intra-organizational levels, whereas those at the inter-organizational level were unexpectedly absent, both on how relationships are handled by the seller and on relationships themselves.

At organizational level, the CRM system strongly affected the routines of various categories of personnel within the company and even the degree of coordination and inter-dependence between various categories, with KAMs becoming more dependent on marketing personnel. The organizational embedding of the focal facility in terms of changed routines and internal coordination did not however go the whole way because several barriers appeared here. The internal user categories of KAMs did not accept this tool because, despite the promise to improve their daily work, it actually made them feel controlled, i.e., less relied upon by management, and made a sensitive part of their job tasks, namely interactions with key customers, exposed to the risk of faulty information in a system that was open also to other users.

An important conclusion here is that organizational and communication flow adaptations that (1) increase inter-dependence over a certain threshold and (2) affect the trust balance among organizational members, may trigger barriers to accept new tools because these become perceived as too risky or as too monitoring. The advent of CRM caused in fact KAMs to start mistrust the marketing department (or better the information they input in the system) and to feel themselves as less trusted by the company management.

A possibility for preventing this type of negative organizational reaction is to dedicate time and resources to training activities for all users of the system, including joint sessions whereby different types of users, who will become dependent on each other after the system
implementation, can also develop arrangements that preserve mutual trust in relation to the changed conditions.

All in all, it takes time for the individual and organizational learning and adaptations that are necessary for fully embedding the CRM system in the using organization. This finding is supported by an extensive body of research on the implementation and use of IT systems (Leonard-Barton, 1988; Orlikowski et al. 1995; O’Mahony & Barley, 1999; Baraldi, 2009).

The effects of the CRM system on customer relationships were instead much more limited than we expected at the start of our investigation, especially considering the fact that the technical embedding of the CRM system had been accomplished according to plans. A major reason for the lack of inter-organizational effects is certainly the still limited adoption by some categories of users in the host company, and especially by KAMs, who are expected to be those who can really in turn affect the most how customer relationships are handled and even their content. Our second conclusion is accordingly that in order for CRM systems to produce inter-organizational effects, and namely influence or improve customer relationships, it needs first to be well embedded within the single organization applying it (thanks to user commitment and new accepted routines).

Our final conclusion concerns the seemingly puzzling result that CRM remains basically unused in handling the supplier’s most established relationships, while it is extensively applied to the newest ones. Established relationships are in fact the most complex, intensive and information-rich ones, where one can expect to obtain major advantages by increasing the efficiency in information management thanks for instance to CRM. But it is just the long-term and historical nature of these established relationships that creates specific barriers to applying CRM specifically on them: the great deal of informal information exchanged, tacit knowledge and personal experiences accumulated by KAMs over the years make it more difficult to model, formalize and eventually “digitalize” them (cf. Baraldi & Nadin, 2006), which is made even more difficult as established relationships are often managed by more senior, IT-averse KAMs.

Thus, our third conclusion is that CRM faces stronger barriers in being applied to and affect long-term, established and complex customer relationships, even if it is here that it might provide the greatest rationalization advantages due to the broad patterns of information exchange in these types of relationships.

It is not surprising then that CRM is first utilized and produces effects on the relationships which entail the least resistance, as they are new and handled by new KAMs. We can expect that it will take time before utilizing CRM for all customer relationships because these tools need first to become fully embedded inside the whole using organization, which is in turn a time-consuming learning process entailing also organizational changes and overcoming the internal and individual barriers reviewed above. Therefore, our findings are limited by the timeframe of our study and further research is advisable that investigates the utilization of the same CRM system more on a long-term perspective, for instance 5-6 years after its introduction.
MANAGERIAL IMPLICATIONS

Our study suggests a set of managerial implications for SMEs that aim to adopt CRM. CRM implies a non linear embedding process Its effects on customer relationships are moreover unexpected due to opportunities and obstacles created by the surrounding resources in which the CRM is embedded (see Baraldi, 2003; Baraldi & Waluszewski, 2005). When companies approach CRM it is necessary to cope with barriers that could stem within the organization, for example employers’ resistance in adopting it as customer’s information source. Therefore, managers involved in developing a CRM project should motivate and support not only sales and marketing personnel in using it but they have to communicate to them what are benefits and advantages. It is also important for companies to organize CRM in such a way that it could be modified or adapted following the users needs, and of course by establishing a CRM leader or manager. Last, the higher is the collaboration between the leader and the users the lower is the risk to lose time and resources in order to rely on good and reliable customer information.
REFERENCES


