CUSTOMER RELATIONSHIP MANAGEMENT SYSTEMS AND MOBILE DEVICES

A Surevy of Customer Relationship Management Projects in German-speaking Europe

Rebecca Bulander

Pforzheim University, Tiefenbronnerstr. 65, 75175 Pforzheim, Germany

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Abstract: This paper focuses on the implementation of IT applications for Customer Relationship Management (CRM) using mobile devices. In literature we can find evidence about a high number of failed CRM implementation projects. A CRM implementation project in this paper is defined as an implementation of a CRM system together with mobile devices. However concerning CRM projects in combination with the implementation of mobile devices for field staff in sales and services there haven't yet been many results published. This article summarises challenges, success factors and achieved objectives of CRM implementation projects. The basis of the research was a telephone survey of 102 respondents in German-speaking Europe.

1 INTRODUCTION

In the past several studies (e. g. Alt 2004; Thomson et. al 2002; Ryals 2000) documented the failure of Customer Relationship Management (CRM) projects. These projects include the deployment of mobile devices for field staff in sales and services. The access of mobile actors to information while working in a stationary position or walking around with their mobiles at customer's premises is mostly seen as a main advantage. But concerning CRM implementation projects using mobile devices we find nearly no survey results so we can neither make a reliable statement about how many of these projects have failed nor about the success factors. To gain more information about this and to prevent such CRM projects from failing it seems reasonable to analyze such projects. Therefore we want to describe a typical CRM project. We also want to know what the success factors and the achieved objectives of such projects are.

Customer Relationship Management (CRM) is defined as a customer oriented strategy which is supported by information technology (IT) (Hippner 2004). CRM is an infrastructure which enables the delineation of and increase in customer value. It helps to motivate valuable customers to remain loyal and to buy again (Dyché 2002, p. 4).

The IT applications in this paper are focussed on CRM systems integrating actors using mobile devices. In terms of our research mobile devices are mobile handheld devices like cellular phones, personal digital assistants (PDA) and Smartphones but also on-board vehicle computers or notebooks. CRM systems together with mobile devices expand the channels of CRM to the customer (Sundararajan 2002) and assist both actors of CRM – employees of the suppliers and of the customers using mobile devices via public and private communication networks.

In this paper a CRM project is defined as a project which includes the implementation of a CRM system together with mobile devices but also the adoption of a customer oriented strategy. A project is a timely restricted endeavour to achieve stated objectives; it also has an assigned budget.

The survey focuses on CRM projects of companies which sell their products and services to other companies – this is the so called business to business (B2B) sector. The B2B sector is more appropriate because in this sector we find a higher number of field staff working with mobile devices in com-

bination with a CRM system than in the B2C sector. The buying decisions in the B2B sector are mostly based on economically rational reasons.

The survey will include the scenarios describing whether the employees of the supplier and/or of the customer are working in a stationary position or walking around with their mobiles at customer's premises (Hampe et al. 2002). Mobile state means the mobile actors are not located within their home-like infrastructure. The scenario of mobile services provided to the mobile devices of a customer is excluded in this research model because this covers other aspects of CRM like marketing for mobiles and therefore needs other success factors and IT infrastructure.

2 APPROACH

This section provides an insight into the approach of the survey. Therefore we want to detail the following aspects: objectives, literature review, target group, survey model and some information about the survey.

2.1 Objectives

The objectives of the survey carried out in German-speaking regions were:

- Describing a typical CRM implementation project by using mobile devices for field staff in sales and services.

- Identifying the areas of implementation of CRM systems and mobile devices, e. g. marketing, sales or services.

- Analyzing the success factors of a CRM implementation project by using mobile devices.

- Evaluating the achieved objectives of a CRM implementation project by using mobile devices.

2.2 Literature Review

In preparation for the survey and the questionnaire we did a comprehensive literature review. Up to now, little research has been conducted in this described field of research (Salomann et al. 2005). Detailed information of the literature review of this research topic can be found in (Bulander, 2008).

In the literature review we differentiated the conducted surveys by the method of data analysis and the database (like sample size, methodology of questioning, kind of investigation, business sector

and countries in which the companies interviewed were located).

We also created a list of confirmed success factors of CRM implementation projects and achieved objectives in the course of the research of this paper.

One of the results of the literature review is that there is no study which combines all aspects of a CRM project in combination with mobile devices in the B2B sector and analyzes all success factors and achieved objectives. In addition many studies don't cover the aspect of mobile information technology.

Some studies are influenced by a company which delivered the CRM systems or which did the consulting during the CRM projects.

According to the described research gaps there is a need for more research concerning CRM systems using mobile devices. It is also necessary to analyse the objectives which are achieved by implementing CRM systems. Therefore the following study was conducted.

2.3 Target Group

Because the CRM software market differs between the continents (America, Europe and Asia) and IT projects differ between the cultures of countries (e. g. Hestres 2003), we focussed on completed CRM projects of companies which are located in German-speaking Europe in our survey. By choosing completed CRM projects it can be ensured that quick profits as well as long term influences to the company e. g. financial aspects can be observed.

The majority of the companies belong to the following branches: manufacturing, utility industry, chemical and pharmaceutical industry, financial services, industrial and commercial products, trade, IT and telecommunication. Regarding the company size (e. g. number of employees) there were no restrictions, because most CRM software fits all.

Concerning the respondents of the questionnaire it is important to ask employees who were involved in the CRM project or at least who are in contact or working with the CRM system or a CRM process. Therefore we focussed on the departments: marketing, sales, service, CRM and IT. More than 97 % of the respondents belong to project management (18.6 %), management (33.3 %) or upper management (45 %).

2.4 Survey Model

The conducted studies of the literature review were used as a basis of the survey. Especially the

questionnaire of Reinartz et al. 2004 and Müller 2004 were considered. Nevertheless the questions had to be adjusted to the B2B sector and spread to the mobile devices.

The survey model comprised the following five parts:
1. Information on the CRM project and on the use of mobile technology
2. Information on the IT and CRM software
3. Success factors
4. Achieved objectives
5. Information on the company and the respondent

The questions about the company and about the respondent were asked at the end, because they were easy to answer.

2.5 Information on the Survey

The survey was conducted in 2006. The population of the survey was 386 CRM projects together with the implementation of mobile devices. We got this information from scientific and commercial publications as well as studies, professional journals and best practice reports of CRM software houses and consultants. There had been a probability sample of 150 companies chosen from the population. A respondent had been contacted from each company and asked if he was interested in taking part in the survey. Afterwards an appointment for a telephone interview was fixed. If there was no possibility for a telephone interview the respondent was also allowed to fill in the questionnaire on his own. The standard deviation and median absolute deviation of the answers to telephone interviews or written filled in questionnaires differed very little, therefore the answers will be considered as one sample.

We had 102 respondents, thus the response quote of the survey was 68 %. Most answers were from manufacturing companies and utility industries located in Germany.

3 RESULTS OF THE SURVEY

In the next sections we are going to cover the following aspects: a typical CRM project by using mobile devices, success factors and achieved objectives of CRM projects.

3.1 A typical CRM Project by using Mobile Devices

In this section we will highlight some questions which reflect the majority of answers.

In the CRM implementation projects 26 different CRM software solutions were in use. In the majority (27 answers) the software of SAP AG was mentioned. During the implementation phase of the IT in most of the CRM projects the CRM system and the mobile technology was implemented at the same time. The total implementation of the CRM project took on average 11 months. The mean of the number of current CRM software licences was 230 and the median 100 licences. The average cost for hardware had been lower than the average cost for labour and software.

Most of the mobile devices in use were mobile phones, notebooks and sub-notebooks as well as personal digital assistants. While using a device in the category of notebooks 68 % answered that they carried their required data for the customer interaction on their mobile device.

The fields of operation of mobile technology are mainly in sales and services. Figure 1 displays the answers about the use of CRM systems and mobile information technology in services.
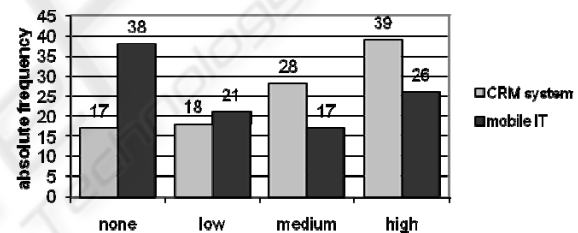

Figure 1: Use of CRM systems and mobile IT in the operational field of services (n=102).

To find out if there are some mobile specific characteristics of CRM implementations in combination with mobile devices, the following results were obtained:

- The median of the question about the share of travel time in relation to the total amount of working hours of a sales representative was within the medium level of agreement category.

- Beyond that the median of the question about the frequency of the rerun of processes in field sales and services was within the high level of agreement category.

- The respondents also mentioned that there is a high requirement of time critical or location specific information for the field sales and services. The median of this question was within the high level of agreement category.
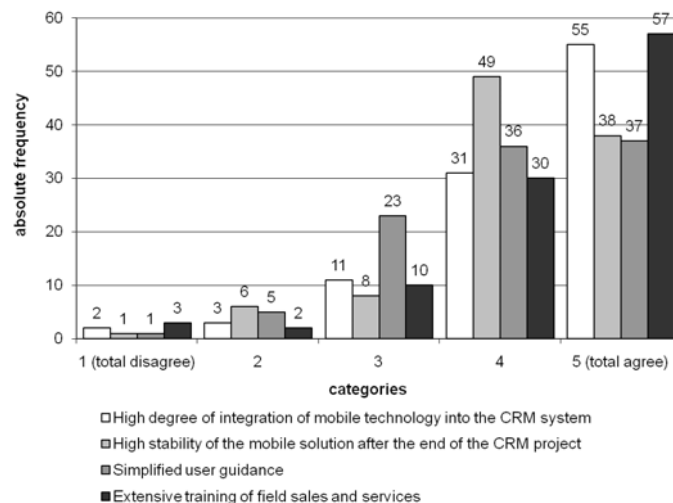
Figure 2: Success factors of the category implementation of mobile specific IT.

3.2 Success Factors

As a result of the literature review we identified 25 success factors of CRM projects. The success factors are listed below in the following six categories. The first three categories focus on CRM and the other three on information technology (Hartel et al. 2006, Reinartz et al. 2004, Müller 2004):

1. **Actions to Acquire New Customers or Win back Customers**

    a. Utilization of different channels for acquisition of new customers

    b. Differentiation of acquisition efforts by expected customer value

    c. Deployment of analytical methodologies to assess potential customers

    d. Deployment of analytical methodologies to win back lost customers

    e. Deployment of analytical methodologies to win back inactive customers

2. **Actions to Retain Customers**

    a. Standardized inter active customer communication

    b. Continuous adjustment to the requirements of the customer processes

    c. Deployment of measures in order to transform non-profitable customer relations into profitable customer relations

    d. Deployment of methodologies to evaluate regular customers

3. **CRM Performance**

    a. Competitive advantage by alignment with customer requirements

    b. Support of senior level management

    c. Establishment of long term relationships

4. **Implementation of Mobile Specific IT**

    a. High degree of integration of mobile technology into the CRM system

    b. High stability of the mobile solution after the end of the CRM project

    c. Simplified user guidance

    d. Extensive training of field sales and services

5. **Implementation of the CRM Systems**

    a. Uniform customer data base

    b. Integration of all communication channels

    c. Availability of customer data

    d. High degree of integration into the back end systems of the company

6. **Implementation of IT in Conjunction with Mobile Technology**

    a. Connection category of field sales to the company

    b. Adequate data transfer

    c. Ensuring seamless process support

    d. CRM system and mobile devices cope with real life requirements

    e. Level of customization of the CRM system and the mobile application in order to meet
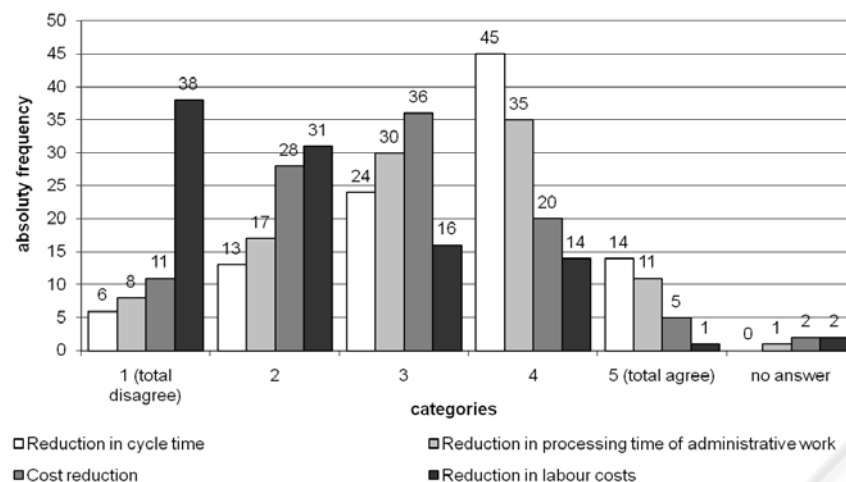
Figure 3: Achievement of field and sales service objectives.

the requirements of the field sales

As an example Figure 2 displays the result of the category 'implementation of mobile specific IT'. In this figure we find a high level of agreement category to all questions of success factors. Especially extensive training of all field sales and service representatives to use the mobile devices in front of the customers is very important. Very often good sales representatives aren't always used to mobile devices and CRM software solutions. All success factors could be confirmed by the empirical study.

3.3 Achieved Objectives of CRM Projects

As a result of the literature review we identified 29 objectives. The objectives are categorized into three groups: The first group is the total satisfaction with the CRM project; it is measured by 3 objectives. The second group is related to the achievement of corporate objectives.

This group has four dimensions and 17 objectives. The third group has 9 objectives referring to the field sales and services by using mobile devices and measured in three dimensions.

Group 1: Total Satisfaction

a. Assessment of the success of the CRM project
b. Achievement of mobile IT
c. The willingness to undertake such a project again

Group 2: Achievement of Corporate Objectives

1. *Dimension Finance*
   a. Revenue increase
   b. Profit increase
   c. Increase in repurchasing rate
   d. Cost reduction
   e. Cost reduction by client over time

2. *Dimension Customer*
   a. Establishment of an innovative image
   b. Improvement in customer satisfaction
   c. Improvement in customer communication
   d. Reduction in the number of complaints
   e. Increase the number of new customers
   f. Reduction in loss of regular customers

3. *Dimension Employee*
   a. Improve employee communication
   b. Increase employee satisfaction

4. *Dimension Processes*
   a. Process improvement
   b. Improve sales effectiveness
   c. Improve service effectiveness
   d. Increase the success of marketing campaigns

Group 3: Achievement of field sales and service objectives

1. *Dimension Time and Costs*
   a. Reduction of cycle time

    b. Reduction of processing time of administrative work

    c. Cost reduction

    d. Reduction in labour costs

  2. Dimension Quality Assurance

    a. Improve data quality

    b. Improve information quality

  3. Dimension Processes

    a. Improvement in productivity of field sales force

    b. Reduction in media brakes

    c. Process improvement in field sales

    d. Increase process automation

As an example Figure 3 displays four objectives of field and sales service. To three of them (reduction in cycle time, reduction in processing time of administrative work and cost reduction) the respondents mostly agreed. A disagreement occurred in the objective reduction in labour costs. In this case many respondents mentioned that the responsibility for the field sales increased and therefore they needed more time or the free time by using the CRM solution was used to increase the relationship to the customers. Therefore we can summarise that the reduction in labour is only in some cases an objective of CRM projects.

The other mentioned objectives could be confirmed in the study. Very high scores were achieved in the dimension quality assurance. More than 80 % agreed that they could improve their data and information quality by using mobile devices in combination with CRM systems.

3.4 Further Steps

To improve the result of the proposed research model further empirical research is needed. Therefore it would be interesting to analyse if there are different success factors and objectives in other CRM markets.

A further step of research would be to investigate the interdependence between the success factors and the achieved objectives.

4 CONCLUSIONS

The described approach displayed results of analyzed CRM projects in companies of the business to business sector. Based on a comprehensive literature review success factors and achieved objectives were collected and categorized.

A survey of 102 CRM projects in companies in German-speaking Europe had been conducted. Thereby a typical CRM implementation project was described and the areas of CRM implementation were displayed.

The paper listed the identified success factors from literature. All factors could be confirmed by the result of the study.

Another result of the study was to evaluate the achieved objectives of CRM projects. Therefore it was also important to consider the objectives of the field sales and service and to measure them in different dimensions. One result of this measurement was that many respondents could not reduce their cost of labour while using a CRM software solution and mobile devices.

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