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School of Economics and Management
Department of Informatics

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The net benefits of Mobile Customer Relationship Management

From the perspectives of suppliers, resellers and users

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Authors

Leif Nordstrand
Gargi Varu

Supervisor

Björn Johansson

Examiners

Agneta Olerup
Hans Lundin

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Authors Leif Nordstrand
 Gargi Varu
Publisher Department of Informatics
Supervisor Björn Johansson
Examiners Agneta Olerup
 Hans Lundin
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Abstract

The purpose of our study is to gain better understanding on the net benefits of Mobile Customer Relationship Management (mCRM) from the perspectives of suppliers, resellers and customers. By studying and comparing different views of supplier, reseller and customer, we are interested to investigate if the implementation of mCRM will deliver the net benefits to an organization as its marketing message states, e.g. enhanced productivity, performance, profits and build customer intimacy. The research question is 'Which net benefits can usage of mCRM give the users?'. The sub questions are 'In which way has mCRM changed the way of working?', 'How can mCRM help to improve user satisfaction?' and 'How do the answers differ in the various roles of the value system?' The DeLone and McLean IS Success Revisited model from 2003 and the value system by Porter (1985) will be used when we perform this research study. The empirical information is collected through interviews of different roles of the value system. A framework is introduced to give a good structure to present the empirical data, to enable the analysis and to provide a foundation for the conclusions. mCRM usage can give a possibility document your work on-line when you are visiting a customer. The mobility initiative in CRM can give net benefits to organizations that have the knowledge to utilize its functions. The marketing message matches well with what the providers and resellers state and also with the benefits users are enjoying in practice. However, the degree of experiencing these benefits varies among different users. The reasons for the variation are training of the system, users' own capability to adopt to the technology and users' knowledge about the functionality offered by the system. The negative side of mCRM is its technical limitations. These limitations also affect the realization of mCRM net benefits. However, they are not strong enough to close the mCRM opportunities because day by day technology is improving.

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Abbreviations

CRM	Customer Relationship Management
ERP	Enterprise Resource Planning
IS	Information Systems
IVR	Interactive Voice Response
LAN	Local Area Network
mCRM	Mobile Customer Relationship Management
MPS	Master Production Scheduling
PC	Personal Computer
PDA	Personal Digital Assistant
QR	Quick Response
SLA	Service Level Agreement
VPN	Virtual Private Network

1 Introduction

1.1 Background

In the age of globalization an organization needs the right information to the right people in the organization at the right time and across the boundaries of location, to stand in the market and succeed globally. It can be achieved through an Information System that collects data across the organization and its processes and stores it and generates information and also provides feedback to meet an objective (Stair & Reynolds, 2008). In addition it is also important for organizations to initiate, increase and maintain relations with customers to be able to compete in the global market. The central goal of every business is to serve its customers, as the customer is one of the key factors of success and failure of the business. The business and strategy experts as well as all employees who interact with the customers, need right information at right time about their customers, so that they can serve and satisfy their customers' needs.

Customer information lies across different departments in the organization. The employees from marketing, sales and services who are facing customers every day need a real time holistic view of information related to each customer. An Information System with customer centered functionality and features known as Customer Relationship Management (CRM) is a way to do just that. CRM is used to manage an organization's interaction with customers, clients and sales prospects. CRM is a set of business strategies involving different applications that focuses on how, when, where and why the business interacts with current and potential customers. When the marketing people use CRM applications they are able to identify and target their best customers, manage marketing campaigns and generate quality leads for the sales team. Sales management, account, telesales and sales activities can be improved by optimizing information shared over different departments and streamline the existing business process. Sales people may also take quick yet informed decisions on cross-selling, up-selling, target marketing strategies and competitive positioning policies. It results in reduction of customer services cost and increase in profits by strengthening the customer relationship, satisfaction, loyalty and advocacy (Wikström, 2004; Kincaid, 2003; Starkey & Woodcock, 2002; Rigby et al., 2002). The organization can treat individual customers in a consistent way with their individual needs and organization's customer objectives.

1.2 Opportunity area

Today, employees from marketing, sales and service areas spend an increasing amount of time closer to customer and in the field or at customers' premises (Unhelkar, 2006). In this competitive age a businessman wants urgent information when he is on the road, a boss wants to remain in contact with his remote site employees, a sales person needs continuous updates on information related to products and customer service supporter needs a picture of his customer on his fingertips while attending their problems. Access to real time and up-to-date sales, product or service and customer information regardless of time and place, assist them to effectively manage the interactions with customers, service task and also effectively collaborate with colleagues. Without access to correct and real time information the productivity suffers (Stair & Reynolds, 2008).

The innovation and development in the field of wireless communication and mobile technology open a space for mobile commerce. Mobile commerce allows exchange, collaboration or buying and selling of commodities, services or information on the internet through mobile computing devices (Unhelkar, 2006). An increasing variety of mobile computing devices - including laptop Personal Computers (PCs), tablet PCs, Personal Digital Assistant (PDA) and smart phones – improve the efficiency of one's daily life (Unhelkar, 2006). In addition, according to Gartner's PC installed based forecast, up to 2013 the total number of PC in use should reach 1.78 billion. At the same time, the users of smart and other mobile phones that have the facility of browsing reached to 1.82 billion units (Gartner, 2011a). Moreover, Gartner (2011b) also forecast that over all sale of mobile phone will reach 1.8 billion units while sales of smart phones will reach 468 million units in 2011 representing 26% of the market. This statistics do not only show increasing use of mobile phones in regular life but also open a door for mobilization at the workplace. The adoption of mobile technology can be a solution of constant delivery of updated data across the boundary of time and place in the domain of CRM. Thus it can be extension of the CRM to a Mobile CRM (mCRM). Here, by term 'Mobile CRM' we mean that with the help of mobile technology and its products, the knowledge and information as well as functionality provided by existing CRM systems can be moved to the users' finger tips, at the place where the users are working and at the time when they need. Mobile CRM opens up a new application and research area, e.g. that the work can be done at the customers' premises and the main system can be accessed and information can be synchronized. The scope and opportunity for mCRM are to address the issue of information mobility and access of real-time data.

1.3 Problem

The industry analysts estimate that 95 percent of organizations are currently implementing or planning to implement new mobility initiatives (Kakahara & Sørensen, 2002; Allen, 2010). mCRM is a part of this mobility initiative. Business magazines and non-scientific journals (BlackBerry, 2008; Maximizer Software, 2008) have discussed about the implementation of mCRM, opportunities and net benefits, e.g. effective customer support, increased individual productivity, improvement in customer satisfaction and access to real-time data offered by mCRM. The scientific publications (Wikström, 2004; Kincaid, 2003; Starkey & Woodcock, 2002; Rigby et al., 2002) discuss the concept of CRM systems, their core components and functionalities. They also discuss the complexity of the CRM system, implementation, installation, maintenance, customization and upgrading issues, e.g. high total cost of ownership and lack of clear strategic view for selection of CRM system (Wikström, 2004; Kincaid, 2003; Starkey & Woodcock, 2002; Rigby et al., 2002). Unfortunately, there is a lack of scientific studies in relation to the advantages accomplished through successful transformation of mobile services in the field of CRM, i.e. mCRM.

1.4 Purpose

Increasing use of mobile phone and industry analysts' estimations about mobility initiatives into organizations encouraged us to study the outcomes of mobility initiative in CRM. Furthermore, in order to fill up the knowledge gap about mCRM, the purpose of our study is to gain better understanding on advantages of mCRM from the perspectives of suppliers, resellers and users. By studying and comparing different views of suppliers, resellers and users, we are interested to investigate if the implementation of mCRM will deliver the net benefits to an organization as its marketing message states, e.g. enhanced productivity, performance, profits and build customer intimacy (BlackBerry, 2008; Maximizer Software, 2008). Differences between these perspectives, i.e. supplier, reseller, user and the marketing message, will show the gap between the promises made by the marketing message and the reality experienced by the users. It also highlights the different views of the value system. In addition, with the help of this study, organizations can identify 'Which net benefits can usage of mCRM give the users?' and thus it assists in taking strategic decisions for being mobile.

1.5 Research question

As already stated, behind this research our main purpose is to investigate net benefits of mCRM not only promised by suppliers and resellers but also realized by users. In order to fulfill the purpose of the research, the main research question is:

Q: Which net benefits can usage of mCRM give the users?

The sub questions are used to assist in investigating the research question stated above. The first two sub questions aim to find out some of the specific promises the marketing message carries as productivity, performance and customer satisfaction enhancement and also building customer intimacy (BlackBerry, 2008; Maximizer Software, 2008). The first sub question is:

Q1: In which way has mCRM changed the way of working?

This sub question helps to get different views of suppliers, resellers and users on how mCRM can enhance employees' productivity and performance by changing their way of working. The second sub question is developed in order to know about customer satisfaction, which helps to investigate the contribution of mCRM in building customer intimacy. The second sub question is:

Q2: How can mCRM help the users to improve customer satisfaction?

The third sub question works as a bridge between the main research question and the first two sub questions defined above. The third sub questions will give different views of the various roles in the value system from first two sub questions and compare them. Hence the aim of third sub question is to find out if the different roles in the value system share the same views of the net benefits mCRM give, or if they differ. The third sub question is:

Q3: How do the answers differ in the various roles of the value system?

The third sub question will help to identify the net benefits realized by users and it can assist organizations in taking strategic decisions for being mobile.

In this way, the first and second sub questions provide a base for the main research question. The first sub question will give the perspectives of the different roles of value systems on whether usage of mCRM enhance the productivity and performance of employees and make their work easy. The second sub question covers the main aspect of any CRM system – customer satisfaction and building customer intimacy (Blattberg & Deighton, 1996). The third sub question compares the different views and contributes in investigation of the net benefits of mCRM realized by users in practice.

1.6 Delimitations

Since our research area – mCRM - is a newly emerged area in the market, it is hard to find such organizations that are using mCRM and have at least five years of experience of mCRM usage. It means that it is hard to find data and experience of users. In addition, the individuals' ability to adopt new technology, understanding of system's functionality and ability to take optimum benefit of it also affect the research. The user companies that we study are small to medium sized companies. The study is more applicable for companies, which operate under similar circumstances. Moreover, functionality and complexity offered by mCRM system differed by supplier. By keeping this issue in center during research, we have given importance more to common functionality for customer service, sales and marketing people than to field service.

2 Literature review

This chapter describes the DeLone & McLean Information System Success Revisited model from 2003 and the value chain and value system by Porter (1985). It also discusses how presented models are going to be used in further research. The chapter is concluded with discussion on derivation of proposition and questionnaire which will be used in further research and data analysis.

2.1 DeLone and McLean IS Success Revisited model

As the main research question says, we are interested in the net benefits offered by mCRM to users. Based on the research context, these benefits are individual and organizational. Individual benefits consist of quality of work, performance and productivity of employees of an organization, while organizational benefits are customer relationship, competitive advantage, flexible information access, information quality and business efficiency. However, the net benefits can be positive or negative based on affected factors. In search of the affected factors, we came across the DeLone & McLean IS Success Revisited model (2003) (figure 2.1).

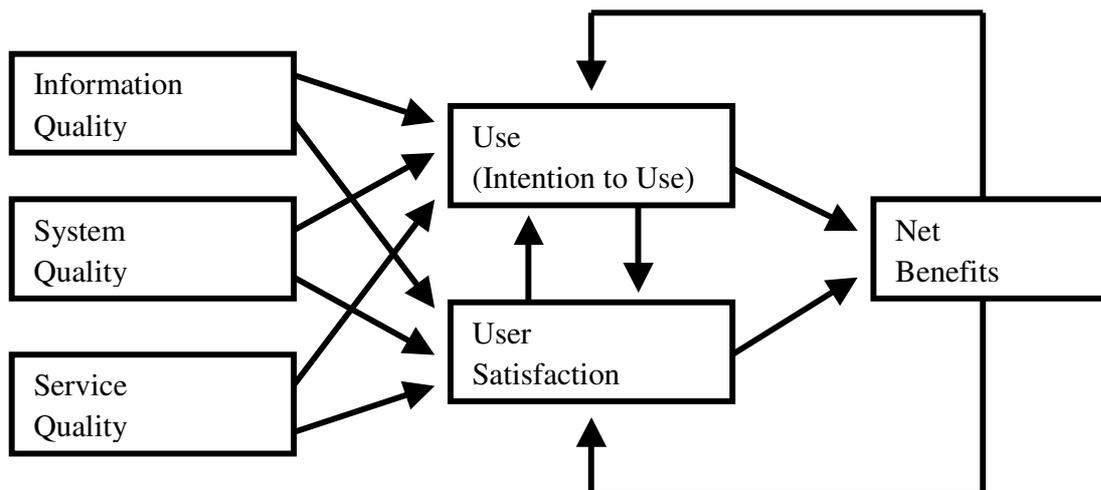


Figure 2.1: The IS Success Revisited model, (DeLone & McLean, 2003).

In the Information Systems Success Revisited (DeLone & McLean, 2003) paper, the updated IS success model has six interrelated dimensions. They are information quality, system quality, service quality, use (intention to use), user satisfaction and net benefits. According to DeLone & McLean (2003), the information quality dimension is used to measure accuracy, timeliness, completeness, relevance and consistency of information. The system quality is used to measure ease-of-use, functionality, flexibility and reliability of IS. The third dimension service quality is used to measure the services offered by IS in terms of reliability, responsiveness, assurance and empathy. The characteristics of information, system and service quality impact the use (intention to use) and user satisfaction, which affects the net benefits. The net benefits will influence the use (intention to use) and user satisfaction of the system.

By accepting the DeLone and McLean model as the theoretical model, we get the base for identifying and measuring the net benefits like enhancement in performance and productivity of individual, customer satisfaction and hence improvement in long customer relationship and profit. With the help of service quality and information quality dimension, we will be able to identify that whether these advantages accomplished through mCRM. In addition, it will also be helpful to develop propositions and interview questions, which are discussed in detail in the 'Proposition' section.

2.2 Value chain and value system

The value chain concept is a business management concept described by Porter (1985). The value chain of a company shows activities that are strategically crucial to create a competitive advantage for that company (Hedman & Kalling, 2002). Porter (1985) groups the activities into primary and support activities. The primary activities that are needed to make the product are inbound logistics, operations, outbound logistics, marketing and sales and service. It can be increased efficiency or better quality that the customers appreciate. The support activities that assist the company to do the primary activities are procurement, technology development, human resource management and firm infrastructure. The value chain of a company can be extended to include the value chains of the supplier, channel and user, which Porter (1991) calls a value system (figure 2.2). We will use the value system when we study and analyze mCRM to see if the different roles, i.e. supplier, reseller and user share the same views or if they have different opinions about mCRM. The questions in interview guide are also developed considering the different roles in the value system.

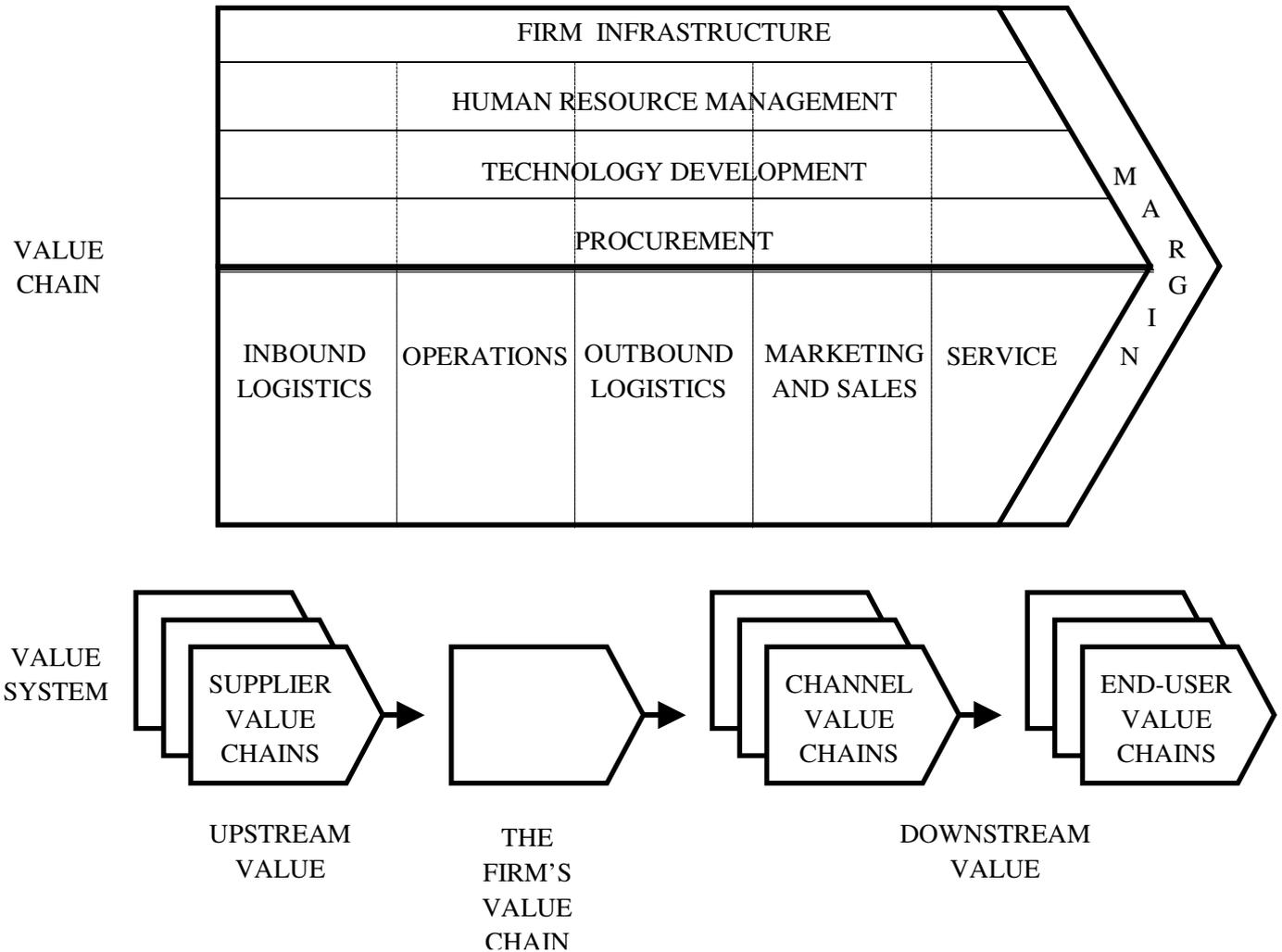


Figure 2.2: Value chain and value system, (Porter, 1991, p.103).

2.3 Research approach

The DeLone and McLean IS Success Revisited model from 2003 will be used when we perform this research study. The reason for selecting this model is that it aims to find the net benefits based on use (intention to use) and user satisfaction. The empirical information will be collected through interviews of different roles of the value system (Porter, 1991), based on six dimension of DeLone and McLean IS Success Revisited model. The roles in this study are the supplier, reseller and user. The relation between perspectives of different roles of value system and theory model, DeLone and McLean IS Success Revisited model, can be described and understood by figure 2.3.

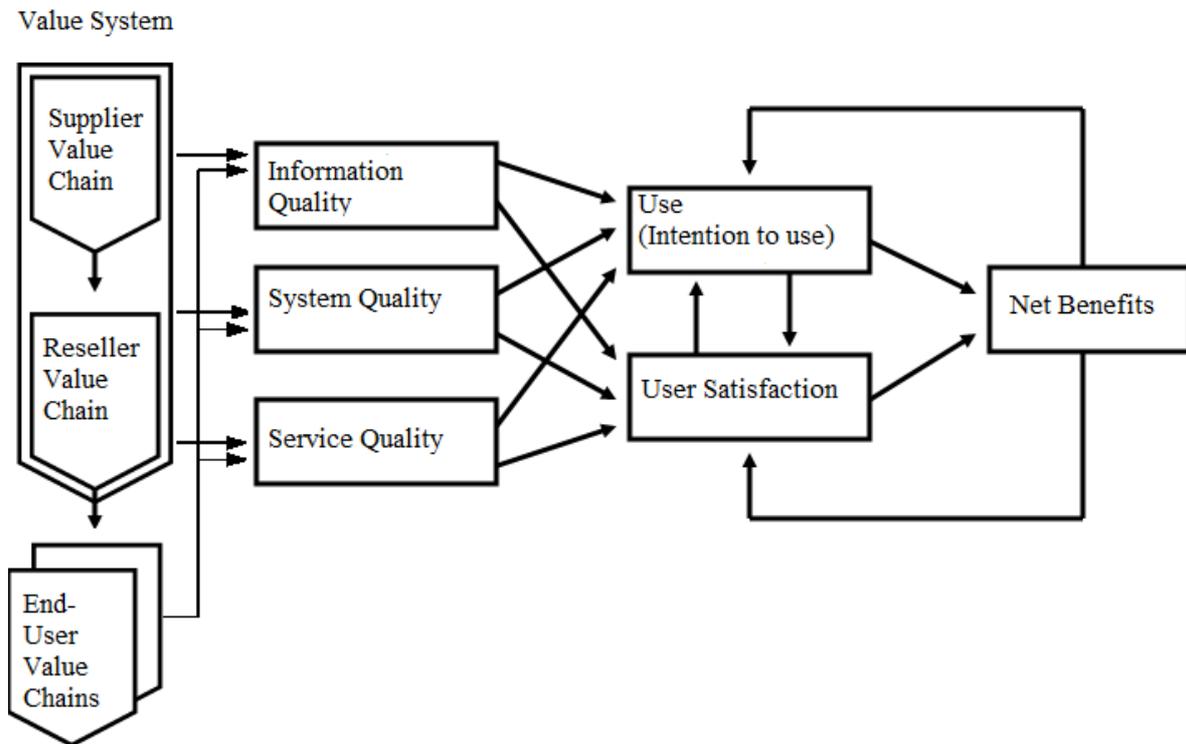


Figure 2.3: The perspectives of value system roles and DeLone and McLean IS Success Revisited Model.

Differences between these perspectives, i.e. supplier, reseller, customer and the marketing message, will show if there are gaps between the promises made by the marketing message and the users' reality. It will also highlight the different views of the value system roles. The supplier is Unikum. The reseller is Cygrids. Users are Miljöcenter and Happy Accessories. These four are connected in a value system. There is a box in figure 2.3 that covers both supplier and a reseller, since Oracle is both.

2.4 Propositions

We have made propositions and interview questions for each of the six dimensions of the DeLone and McLean IS Success Revisited model (2003). These propositions also used to address sub research questions and consequently main research question. In addition, the questions are formulated separately for each role in value system. So that we get appropriate information with respect to six dimensions of the DeLone and McLean IS Success Revisited model (2003) and will be able to maintain quality and truth ness of information. These questions have been used in the interviews and in the questionnaire. We have used sub

questions when needed to get more information. The table 2.1 shows the relationships between the main research question, sub research questions, six dimension of DeLone and McLean IS Success Revisited model (2003), Proposition and interview questions. The Following is the description of symbols used in the table, in order to position propositions and interview questions.

- **Propositions**

P1: Mobile CRM enhances information quality

P2: Mobile CRM system implementation and maintenance are easy and require little effort to do and are easy to use.

P3: Mobile CRM makes service to customers easy and efficient.

P4: CRM enhances profit, productivity and performance of the mobile employees of an organization.

P5: The usage of mobile CRM enhances the level of satisfaction of the users.

P6: The usage of mCRM is beneficial to the users.

- **Main question to suppliers and resellers**

I1.1: How does mCRM help the users to obtain accurate information and to deliver up-to-date information to customers?

I2.1: How will the users experience the system?

I3.1: How does mCRM help users to give service the customers?

I4.1: How will mCRM influence the user's ways of working?

I5.1: How can mCRM help to improve user satisfaction?

I6.1: Which advantages and disadvantages does mCRM give the users? and Which net benefits can usage of mCRM give the users?

- **Main question to users**

I1.2: How does mCRM help you to obtain accurate information and to deliver up-to-date information to customers?

I2.2: How was your experience with the system?

I3.2: How does mCRM help you to give service the customers?

I4.2: How has mCRM influenced your way of working?

I5.2: Which experiences have you had with mCRM?

I6.2: Which advantages and disadvantages does mCRM give you? and Which net benefits can usage of mCRM give you?

Table 2.1: Relation of research questions, theoretical model, propositions and interview questions.

Main Research Question	Sub Research Question	Six dimensions of DeLone and McLean IS Success Revisited model (2003)											
		System Quality			Use and Intention to use			Net Benefits					
		Proposition	Question to supplier & reseller	Question to users	Proposition	Question to supplier & reseller	Question to users				Proposition	Question to supplier & reseller	Question to users
		P2	I2.1	I2.2	P4	I4.1	I4.2						
		Information Quality			Service Quality			User Satisfaction					
		Proposition	Question to supplier & reseller	Question to users	Proposition	Question to supplier & reseller	Question to users	Proposition	Question to supplier & reseller	Question to users			
		P1	I1.1	I1.2	P3	I3.1	I3.2	P5	I5.1	I5.2			
Q3: How do the answers differ in the various roles of the value system?													

2.5 Aspects

For each of the six dimensions of the DeLone and McLean IS Success Revisited model (2003) we have brought forward a number of aspects that the respondents have touched upon. For each aspect there are key words from the respondents who have stated something in connection to respective aspect that denote their response.

2.6 Summary

In the literature review we have presented the DeLone & McLean IS Success Revisited model from 2003 and the value chain and value system by Porter (1985) and also why and how they are used in this study. Now we will continue with the methods we have used.

3 Methodology

3.1 Selection of companies

We searched the web for companies that supply mCRM and found the four of the large companies and three of the local companies. We decided to contact four of them to see if they were interested in participating. Unikum and Oracle answered positively. At Unikum homepage we found their resellers and customers. We decided to contact two of the resellers and four of the users. We got positive responses from the reseller Cygrids and the users Miljöcenter and Happy Accessories.

3.2 Interviews and interview guides

We have made five interviews and sent two questionnaires via email. It is the interviews with Oracle that are made with the help of email. Email was used, since that was the only way to get the interviews done. We had the opportunity send follow-up questions, which we also used and received more information.

- Interview one was done with one of the managers at Unikum, who preferred to be anonymous. We have replaced his name with Johan Svensson in this thesis. Unikum is a supplier.
- Interview two was done with an Account Manager Andreas Lindqvist at Cygrids. Cygrids is a reseller.
- Interview three was done with the IT manager Tomaz Lundstedt at Miljöcenter. Miljöcenter is an user.
- Interview four was done with the Managing Director Mikael Drennow at Happy Accessories. Happy Accessories is an user.
- Interview five was done with the Purchasing and Manufacturing manager Tiffany Drennow at Happy Accessories. Happy Accessories is an user.
- Questionnaire one was sent to and answered by a Team Manager at Oracle, who preferred to be anonymous. We have replaced her name with Linda Johnson in this thesis. Oracle is both a supplier and a reseller.

- Questionnaire two was sent to and answered by a Development Manager at Oracle, who preferred to be anonymous. We have replaced her name with Anna Nilsson in this thesis. Oracle is both a supplier and a reseller

Interview guides have been used to give a direction, to structure the question areas and to list the question topics in each area respectively. The second questions followed up on what the interviewee said. They were asked to get more information and answers on the current area. There are two interview guides, one for supplier and reseller and also one for user (appendices A1 and A2). The reason for that is that provider and reseller have the same perspective of providing mCRM, while the users are the actual users of mCRM. The questions guides for both these two categories are founded on the DeLone & McLean IS Success Revisited model from 2003. Since we ask the questions of the different roles of the value system, i.e. supplier, reseller and user, we also connect the answers to the value system by Porter (1985).

The first question: 'Please describe your current role?' is asked to start the interview and to get to know what the interviewee works with. The second question: 'What do you think about mCRM?' and third question 'What is meant by mCRM?' are asked to get an overview of the interviewee's perception of mCRM and how the interviewee understands and describes it. By asking these two questions we will find out if we are talking about the same area or if there are some differences. If there are some differences we can clarify these and describe the area we are interested in, so we are talking about them same subject. The fourth to the tenth questions all relate to the DeLone & McLean IS Success Revisited model from 2003. There is a proposition for each of the six areas, which describes the marketing message for respective area. The questions asked to the supplier and reseller are asked to get their views and opinions on how mCRM will affect the user in the six different areas. By asking them these questions we can see if they will verify, oppose or add something to the marketing message or to what the users experience. The questions asked to the users are asked to get their real experiences on what mCRM has done for them and how it has impacted their daily working situation. By asking them these questions we can see if they will verify, oppose or add something to the marketing message or to what the suppliers and reseller state. We will both get answers for each of the areas in DeLone & McLean IS Success Revisited model from 2003 and for the value system roles used in this study i.e. supplier, reseller and user. The final question: 'Do you allow us to present your name and name of the company in our study?' is asked to confirm with the interviewee that we can refer to this interview and use his or her name and also the name of the company.

As interviewers we tried to listen actively. We did a briefing at the beginning of the interview, where we set the interview stage and defined the situation for the interviewee. We have listed the questions in appendix 1 and 2. We recorded the interviews to make it easier to transcribe them. We took notes only for the purpose of asking good questions and making follow up

questions during the interview. We sent the transcribed interviews to each interviewee respectively, for feedback, corrections and to improve the quality of the interview. All respondents replied back that the information was correct. We did not get requests of any changes of the content of the transcriptions. The interviewees of Unikum and Oracle preferred to be anonymous, so we have replaced their names, however they allowed us to use their company names.

3.3 Presenting and analyzing data

The empirical data will be presented in tables (table 3.1). The research presentation will be used for each of the six dimensions in the DeLone and McLean IS Success Revisited model (2003), i.e. there will be one for each the propositions. The replies from the representatives for the different roles in the value systems will enable us to investigate how the different parties in the value system appreciate mCRM and to locate differences in opinions. It will also make it possible to compare the marketing message with the reality for the users of mCRM. These tables will give a good structure to present the empirical data, to enable the analysis and to be a foundation for the conclusions.

Table 3.1: Research presentation.

Aspects	Supplier and Reseller: Oracle	Supplier: Unikum	Reseller: Cygrids	User: Miljöcenter	User: Happy Accessories

The data analysis will be performed on the empirical data that is presented in the tables (table 3.1). Each of the six dimensions will be analyzed, where the answers from the respondents will be compared with each other as well as the propositions. By doing this we can answer our research question as well as the sub-questions. It will be visible if the suppliers' and resellers' views and opinions about mCRM agree with the marketing message and are shared with the users' real experiences of mCRM usage.

3.4 Source criticism

The theory and models used in this study are well established. We have searched the web for well known and extensively referenced articles, which are used in the investigation, interviews and this report. Of course there is the risk that we could have missed some information that could have been useful in this research project. The responses in the

interviews are the opinions of the interviewee and not necessarily the actual truth. We will never know that for a fact. Their answers can be given to support some ideas or to convey a message. However we get answers from the three roles of the value system i.e. supplier, reseller and user and can review where their answers coincide and where they differ. In the Oracle Team Leader interview some of the answers can also be found in a document published by Oracle (2011b).

3.5 Bias

There is no patent solution to error and bias, and there are no process or procedure that can guarantee that bias and error are eliminated (Norris, 1997). Bias is usually referred to a systematic error that can be a diversion from a true value or from conscious or unconscious errors made by the researcher incorrect conclusions (Hammersley & Gomm, 1997). We have aimed to be unbiased in this investigation and research. However what is a true, correct or objective value, depends on which perspective you take.

3.6 Reliability

We describe the context for mobile CRM and for this study and the interviews, to enable readers and other researcher to see the circumstances for the studies. The collected data has been structured, to give readers the possibility to follow how the data analysis has been done. Seale (1999) proposes that the reliability in qualitative research can be strengthened by using these five features: use low-inference descriptors, use multiple researchers, use participant researchers, peer examination and record data mechanically. We fulfill some of these, as we are two researchers who both have recorded the interviews and reviewed each others transcripts. The interview transcripts have also been sent to the respective interviewee for corrections and the research has been reviewed by peers at Lund University. All interviewees replied back that the information was correct. They did not request any changes of the content of the transcriptions. The peers have given good constructive suggestions for how the study can be improved.

3.7 Validity

Norris (1997) suggests that validity is related to the sense and cause we have for accepting and trusting the claims that are made. We have had a critical view by checking and questioning the interviewee findings and also asking the interviewee to review the interview

transcript. We have aimed to take care of errors and bias to improve the validity. There are some different strategies for validation as triangulation, peer review, negative case analysis, clarifying researcher bias and external audits (Creswell, 2007). The interviewee answers are compared between the three roles of the value system i.e. provider, reseller and user, which is a kind of triangulation. We have also asked more than one provider and user to enable a comparison of the given answers. Other students as well as teachers have reviewed the thesis and work.

3.8 Research ethics

The transcribed text matches what the interviewee said. All interviewees replied back that the information was correct. The transcripts are reviewed by the other researcher as well as respective interviewee. All interviewees have been asked if we can use their names in the study. The names and privacy are protected if that is required by someone, however the report will be public information.

4 Empirical studies and analysis

In the empirical studies and analysis chapter we present the information we have gathered on mCRM from each company, through the interviews, questionnaire and by studying their home page on the Internet. The research framework is used to create a structure for the analysis.

4.1 Analysis

We have received answers from three categories: suppliers, resellers and users, which are presented in the tables below. The supplier is Unikum. The reseller is Cygrids. Oracle is both a supplier and a reseller. The users are Miljöcenter and Happy Accessories. The answers are divided with the use of the DeLone & McLean IS Success Revisited model (2003), i.e. one table for each dimension. For each area we have brought forward a number of aspects that the respondents have touched upon. There are key words from the respondents who have stated something in connection to respective aspect that denote their response. There are references which connect the statement with interviewee or questionnaire response and also in some cases for Unikum to product brochures.

4.1.1 Information Quality analysis

Proposition 1: Mobile CRM enhances information quality. In the table below we can see different aspects the respondents have mentioned (table 4.1). There are references to each interviewee answer, where the respondents talk about that aspect. Main question to supplier and reseller: How does mCRM help the users to achieve real-time and accurate information and to deliver up-to-date information to customers? Main question to user: How does mCRM help you to achieve real-time and accurate information and to deliver up-to-date information to customers?

From the research data, providers and reseller claim that mCRM has the capability of capturing more accurate data. The reason behind this claim is that the mCRM applications are nearer to end users. When working at customers' premises, customers can verify the data and thus minimize the number of errors and the information quality is improved. This is beneficial, since you avoid the uncertainty of knowing whether the information you have is correct or not. On the other way, the customers get real time and accurate data at anytime and

Table 4.1. Proposition 1: Mobile CRM enhances information quality.

Aspects	Supplier and Reseller: Oracle	Supplier: Unikum	Reseller: Cygrids	User: Miljöcenter	User: Happy Accessories
Access to real time information	real time data (AN4)	paid or not paid, order stock (JS56, JS57)	check directly (AL12, AL13)	they can check themselves (TL69)	as if in my office (MD22)
Access anywhere at anytime	on line (AN4)	in the mobile phone (JS56, JS57)	where ever (AL12)	information in their hand (TL69)	out on the field (MD29)
Access to all company information	on line (AN4)	answer question (JS33, JS57)	enhance quality (AL19)	in stock or not, order sent or not (TL45)	as if in my office (MD22)
Access to correct information	capture accurate data (AN5)	all information (JS33, Unikum 2011b)	customer confirms (AL112)	correct information (TL69)	as if in my office (MD22)
Streamline business processes	close to customer (AN5)	automatic (Unikum 2011b)	at customer place (AL110)	put their own orders (TL69)	directly from sales to factory, never use any papers (MD29, MD30, TD0)

Table 4.2. Proposition 2: Mobile CRM system implementation and maintenance are easy and require little effort to do and are easy to use.

Aspects	Supplier and Reseller: Oracle	Supplier: Unikum	Reseller: Cygrids	User: Miljöcenter	User: Happy Accessories
Installation	-	support (JS19, JS20, JS25)	really simple (A51)	local software (TL85)	-
Upgrade	-	service pack (JS19, JS20, JS25, JS34, JS41)	really simple (AL51)	cumbersome (TL85)	stay some version back (MD109)
Customization	-	support (JS19, JS20, JS25)	really simple (AL51)	easy (TL85)	complicated (MD101)
Integration	challenges (AN6)	support (JS19, JS20, JS25)	really simple (AL51)	-	-
Application	user design (AN6)	support (JS19, JS20, JS25)	synchronization problems (AL14, AL17)	-	latest version does not work (MD109)

anywhere as well. It is always the latest information that is brought to and from the customer. This is beneficial, since you avoid the uncertainty of knowing whether the information you have is correct or not. The sales people as well as customers know that it is updated and correct information. Users, Miljöcenter and Happy Accessories agree that mCRM applications has simplified the order process and also made input data more accurate. Miljöcenter said that information quality is improved compared to the way they worked earlier. They used to provide data of order by email or calling an operator to enter those details into the system by phone. With the help of mCRM applications, Miljöcenter and Happy Accessories have reduced the order follow-up tasks. Thus mCRM does not only improve information quality but also simplify and streamline business processes. In addition, they can access the latest status of an order or shipment, which helps to satisfy customers' queries.

Summary: The result from the interviews suggest that mCRM can enhance the information quality and also simplify and streamline business processes. The positive effects on the information quality originate from the real time access to all your company information anywhere and anytime. The sales people as well as customers know that the information is up-to-date and correct.

4.1.2 *System Quality analysis*

Proposition 2: Mobile CRM system implementation and maintenance are easy and require little effort to do and are easy to use. In the table below we can see different aspects the respondents have mentioned (table 4.2). There are references to each interviewee answer, where the respondents talk about that aspect. Main question to supplier and reseller: How will the users experience the system? Main question to user: How was your experience with the system?

A weak point with regard to the supplier Unikum is that they state that they really do not know how users use it. Unikum does what their reseller tells them what users need. However they get feedback to their support department through customer questions and requirements, which they collect and act upon based on priority. The statement that feedback is not relevant since you buy a new ERP system every 7 or 10 years is something we do not agree with. We think it is necessary to listen to feedback, if you want to develop a system that meets customer needs and requirements. It is also vital if you aim to stay in the market with an attractive product. The reseller gives a positive view on how easy the software is to install. The user Happy Accessories manages well to do the installation and upgrades. The supplier Unikum releases software updates regularly, i.e. four to five times a year, with new features as well as error corrections. This is done to improve the system quality for the users, however there are new errors in the new releases that the users suffer from. There is a struggle for suppliers to

keep promised delivery dates and to have fully tested software. The user Happy Accessories has solved that by using a version which is some releases back, to avoid the errors which exist in the latest software. Miljöcenter had good experiences from customization of the mCRM software, however they think is cumbersome with the regular software updates, due to the fact that they have local software in three locations. Oracle is trying to meet customer needs by designing the applications with Sync-&-Go functionality to make it easier for users to maintain.

Summary: The software provided by Unikum is updated on a regular basis with new features and error corrections. The user Miljöcenter thinks it is easy to customize the software and that it is cumbersome to do the upgrades. The user Happy Accessories thinks the latest release of the software has too many errors, so they stay some versions back.

4.1.3 Service Quality analysis

Proposition 3: Mobile CRM makes service to customers easy and efficient. In the table below we can see different aspects the respondents have mentioned (table 4.3). There are references to each interviewee answer, where the respondents talk about that aspect. Main question to supplier and reseller: How does mCRM help users to give service the customers? Main question to user: How does mCRM help you to give service the customers?

The supplier and reseller state that with the help of mCRM, mobile workers have access to the latest information, e.g. stock of product, status of shipment, accurate estimation of work or amount, etc. Oracle state that mobile mCRM helps employees a lot. If the service technician is at the customer location, he is more confident in dealing with various customer queries if he has access to its backend office data. Technician and sales people can search the knowledge base and do his job in a better way. The reseller Cygrids states that the purpose of mCRM is to enhance the customer satisfaction and that mCRM will enable faster shipments to the customers. This real time information makes their job easy and efficient. In addition, mobile workers can work from anywhere which provides them with flexibility. The users are also realizing this accuracy, efficiency and flexibility in their work. Miljöcenter added that they could take more net benefits from mCRM if they knew more about the functionalities offered by the system and how to use them. This statement point towards two important things: the training of the system and the level of one's knowledge about the system. These both points affect the efficiency of an employee to do their job.

Summary: mCRM can make it easy to give efficient service to customers. The reseller Cygrids suggests that the purpose of mCRM is to improve the customer satisfaction. The users have both had some positive experiences, as saving time and functional advantages with

Table 4.3. Proposition 3: Mobile CRM makes service to customers easy and efficient.

Aspects	Supplier and Reseller: Oracle	Supplier: Unikum	Reseller: Cygrids	User: Miljöcenter	User: Happy Accessories
Access to real time information	a better job (AN7)	in mobile device (JS56, Unikum 2011b)	check it directly (AL13)	in stock or not, order sent or not (TL45)	all the statistics (MD44)
Enhancing customer satisfaction	improve customer retention (AN0)	enables superior customer service (Unikum, 2011c)	customer satisfaction (AL21)	-	-
Access to on line activities	real time data (AN4)	documentation (JS15, JS33)	place orders (AL12, AL58, AL112)	-	make order (TD0)
Great flexibility	anytime, anywhere (AN4)	in mobile device (JS56, JS57)	where ever (AL12)	information in their hand (TL69)	out on the field (MD29)
Business processes and cash flow	-	streamline business (Unikum 2011b)	streamline business flow (AL12, AL112)	-	directly from sales to factory, never use any papers (MD29, MD30, TD0)

Table 4.4. Proposition 4: Mobile CRM enhances profit, productivity and performance of the mobile employees of an organization.

Aspects	Supplier and Reseller: Oracle	Supplier: Unikum	Reseller: Cygrids	User: Miljöcenter	User: Happy Accessories
Training	knowledge management (LJ4)	-	ad hoc (AL100)	need more (TL10, TL30)	need more (TD11)
Sales activities	drive best practice (AN2)	very helpful (Unikum, 2011c)	presentations easy (AL43)	statistics useful (TL7, TL52)	statistics useful (MD44, TD20)
Streamline the work	work faster (LJ2)	handle any additional work (Unikum, 2011c)	quotations in real time (AL12, AL112)	only use 10% (TL32)	from sales to production (MD29, MD30, TD16)
On-line and off line	both works fine (LJ2)	mainly online in use (JS130-JS140)	mainly online in use (AL14, AL17)	use on-line (TL9, TL20, TL21)	use on-line
Rout planning	available (LJ4)	-	-	desired (TL110-TL117)	-

mCRM, and some negative experiences, as lack of knowledge at the supplier on how to fix bugs and resellers who have too little knowledge about mCRM

4.1.4 Use and Intention to use analysis

Proposition 4: Mobile CRM enhances profit, productivity and performance of the mobile employees of an organization. In the table below we can see different aspects the respondents have mentioned (table 4.4). There are references to each interviewee answer, where the respondents talk about that aspect. Main question to supplier and reseller: How will mCRM influence the user's ways of working? Main question to the user: How has mCRM influenced your way of working?

The supplier Unikum does not know how they use Pyramid Mobile Office out there. The reseller Cygrids states that the Pyramid Mobile Office system is really easy to use and there is training available but it is an ad hoc process. At Miljöcenter the sales employees needs to learn how to use the system more. They only use ten percent of the Pyramid Mobile Office. They can place an order and that is it. At Happy Accessories there are problems with Pyramid Mobile Office, which sometimes are real bugs and sometimes are caused by that they do not fully understand how to use the system. It can be something very simple and still difficult to understand. They have problems to understand Pyramid Mobile Office sometimes, since some parts are not translated to English. Happy Accessories thinks that Pyramid Mobile Office should be more user-friendly and easy to use. These answers differ and are in conflict with each other. The users of Pyramid Mobile Office need training and have difficulties in using Pyramid Mobile Office. The supplier does not know how the users use Pyramid Mobile Office. The reseller say that Pyramid Mobile Office is easy to use and that training is an add hoc process. It is good opportunity for Unikum to start a training service, which all parties in the value system could benefit from.

According to Unikum, Cygrids and Oracle the users have real-time access of sales information, which helps them in their sales activities. They can effectively present accurate and updated information in front of their customers. In addition, mobile CRM application can empower technician or sales person to do up or cross selling or provide accurate estimates of work or amount. Intelligent applications are like personal assistant for the user and help them in performing their duty. The customers can verify and agree with the offer in real time. The users agree on that real-time access to information and graphical presentations make their work easy and effective. It helps to satisfy the customer needs.

The supplier Oracle also stated that field workers can review service calls and update them when the job is completed. This allows them to close calls faster, service the customer faster, and the invoice can be sent out faster. From the supplier perspective, sales representatives can

automatically create, process, and route the sales orders and also ensure rapid fulfillment – even if they're not in the office. It will result into saving of time and cost. The users of mCRM can take orders on their customer's premise. It helps to build up customers trust and remove simple errors like misspellings or ordering the wrong item.

Happy Accessories said that due to mCRM the orders are directly sent to their factory where they can start their work as soon as they receive the order. In this way, mCRM has eliminated many small tasks as the need to follow up the order and also manpower. The users would like to have more features in the mCRM e.g. us Quick Response codes to be enable a snapshot with the device camera, instead of typing in all information.

The supplier Unikum claims that off-line is dead today, but it still works. They say it was used 6 or 8 years ago when Internet was not that common as it is today and that there are always many problems with synchronization. The reseller Cygrids agrees with this information stating that off-line was pretty usual 5 - 10 years ago. They also mention problems with synchronization, which leads to different versions and a corrupt database. The user Miljöcenter does not allow anyone to use off-line since it does not work. The opinions of the supplier, reseller and user are similar. There are problems with off-line that could lead to a faults in the information used in the daily activities. It is interesting that the supplier states that off-line works, when there are many problems with synchronization. There are problems big enough to make the user stop using off-line.

Summary: Overall analysis shows that mCRM can contribute to the employees' productivity. It can also saves efforts, time and money. It all depends on how much knowledge the users have of the system and how it is implemented.

4.1.5 User Satisfaction analysis

Proposition 5: The usage of mobile mCRM enhances the level of satisfaction of the users. In the table below we can see different aspects the respondents have mentioned (table 4.5). There are references to each interviewee answer, where the respondents talk about that aspect. Main question to supplier and reseller: How can mCRM help to improve user satisfaction? Main question to the user: Which experiences have you had with mCRM?

Oracle suggests that the main purpose of a CRM system is to create, maintain and retain relationships with new or existing customers. In order to fulfill these aspects many customer oriented organizations implement a CRM system. Cygrids state that mCRM is about enhancing customer satisfaction. Supplier and reseller claim that the level of customer satisfaction can be improved with the help of mCRM applications. The improvements in customer satisfaction can assist in making a long term relationship. From the supplier and

Table 4.5. Proposition 5: The usage of mobile CRM enhances the level of satisfaction of the users.

Aspects	Supplier and Reseller: Oracle	Supplier: Unikum	Reseller: Cygrids	User: Miljöcenter	User: Happy Accessories
Relationships	create, maintain (AN0, LJ4)	resellers responsibility (JS25)	enhance customer satisfaction (AL21, AL104)	-	-
Information quality	updated information (LJ4)	available on-line (JS56)	real time (AL12, AL112)	statistics (TL7, TL52)	statistics (TD22)
Productivity	increase productivity (LJ4)	automatic update (Unikum 2011b)	faster shipments (AL12, AL112)	lack experience (TL45)	save time (TD16)
Resources	handle additional requests (LJ4)	-	better cash flow (AL12, AL112)	-	save manpower (TD16, TD17)

Table 4.6. Proposition 6: The usage of mCRM is beneficial to the users.

Aspects	Supplier and Reseller: Oracle	Supplier: Unikum	Reseller: Cygrids	User: Miljöcenter	User: Happy Accessories
Real time access	real time data (AN2, AN4)	paid or not paid, order stock (JS56, JS57, JS108-JS115)	check directly (AL12, AL13, AL17)	they can check themselves (TL69)	as if in my office (MD22)
All company information	on line (AN2, AN4)	answer question (JS33, JS57, JS108-115)	enhance quality (AL12, AL17, AL19)	in stock or not, order sent or not (TL45, TL69)	as if in my office (MD22)
Anywhere at anytime	on line (AN4)	in the mobile phone (JS56, JS108-JS115)	where ever (AL12, AL17)	information in their hand (TL69)	out on the field (MD29)
Streamline business processes	close to customer (AN5)	automatic (Unikum 2011b)	at customer place (AL12, AL110, AL112)	put their own orders (TL69)	from sales to factory, no papers (MD29, MD30, TD0)
Great flexibility	anytime, anywhere (AN4)	in mobile device (JS56, JS57)	where ever (AL12)	information in their hand (TL69)	out on the field (MD29)
Sales activities	drive best practice (AN2)	very helpful (Unikum, 2011c)	presentations easy (AL43)	statistics useful (TL7, TL52)	statistics useful (MD44, TD20)
On-line and off line	both works fine (LJ2)	mainly online in use (JS130-JS140)	mainly online in use (AL14, AL17)	use on-line (TL9, TL20, TL21)	use on-line
Productivity	increase productivity (LJ4)	automatic update (Unikum 2011b)	faster shipments (AL12, AL112)	lack experience (TL45)	save time (TD16)
Resources	handle additional requests (LJ4)	-	better cash flow (AL12, AL112)	-	save manpower (TD16, TD17)

reseller perspectives, mCRM improves the quality of information and services and also enhances the productivity of an employee and saves money, time and effort. These are all factors that have a positive affect on customer satisfaction. The end users also agree that mCRM can make their job easy and efficient and also help to satisfy their customers' needs. However the users also argue that their efficiency also depends on their knowledge of the system.

The supplier Unikum states that they really do not know how users use it. Unikum does what their reseller tells them what users need. However they get feedback to their support department through customer questions and requirements, which they collect and act upon based on priority. We think it is necessary to listen to feedback, if you want to develop a system that meets customer needs and requirements. It is also important if you aim to stay in the market with an attractive product

Summary: Information and service quality can affect the customer satisfaction and experience. The users are agreeing with the suppliers and resellers that the usage of mCRM can improve the satisfaction level of the customers. mCRM can give loyal customers with long term relationships.

4.1.6 Net Benefits analysis

Proposition 6: The usage of mCRM is beneficial to the users. In the table below we can see different aspects the respondents have mentioned (table 4.6). There are references to each interviewee answer, where the respondents talk about that aspect. Main questions to supplier, reseller: Which advantages and disadvantages does mCRM give the users? and Which net benefits can usage of mCRM give the users? Main questions to user: Which advantages and disadvantages does mCRM give you? and Which net benefits can usage of mCRM give you? We ask these questions to be able find the net benefits of mCRM.

While comparing providers' and resellers' perspective on net benefits offered by mCRM, we found that the users can enjoy those benefits in practice. The supplier, reseller and user brings forward a number of advantages of mCRM. They all mention that mCRM gives you real time access to all your company information anywhere and anytime and that you can document your work on-line out on the field when visiting the customer. However, the degree of experiencing these benefits is different among different users. There are differences in the answers, e.g. with regards to ease of use. The reseller Cygrids state that the Pyramid Mobile Office system is really easy to use, while the user Happy Accessories say that it can be something very simple and still difficult to understand and also that Pyramid Mobile Office should be more user friendly and easy to use. The user Miljöcenter tell that the sales staff needs to learn how to use the system more. They only use 10% of the Pyramid Mobile Office.

Some reasons for the different answers are user training of the system, the users' own capability to adopt technology and users' knowledge about the functionality offered by the system.

Summary: The organizations can get net benefits of being mobile through mCRM. Now, they can achieve main aspects of CRM – creating, maintaining and retaining relationship with new or existing customers – more efficiently than in the traditional way. The users can experience the benefits of mCRM promised by providers and resellers.

5 Conclusions

In the conclusion chapter we present the main findings of our research of mCRM based on the frame work. The frame work builds on the DeLone and McLean IS Success Revisited model from 2003 and the value system by Porter (1985). The research is summarized by answering the questions defined in the beginning of this study.

5.1 Which net benefits can usage of mCRM give the users?

Suppliers, resellers and users agree that mobile CRM provides opportunity to bring laptop or other handheld device out in the field, where you can document your work on-line when you are visiting a customer. It means that you can have real time access to all your company information anywhere and anytime. It means that you can show customers updated and correct information. It means that you can create and show the order to the customer and the customer can verify that it is correct, so the number of errors will be reduced and the information quality improved. When you leave the customer the order can be sent to e.g. production, so mCRM enables faster shipments to the customers. The CRM functionality which is available at the office can become available everywhere and anytime with mCRM.

5.2 In which way has mCRM changed the way of working?

Mobile CRM enables the users to bring all the information with them anywhere and anytime. The users can show the latest and correct information to the customers. It has changed the way the sales people work. They do not need to call the office for information, as they have real time access to all and the latest information. This is valid both for product and services they sell as well as customer registers or any other information that they need to do their jobs. The tasks and duties are sometimes the same, however they are easier and more efficient to perform when you have access to the correct and latest information. The sales people can for example manage all their clients and other contacts and also organize and schedule meetings, appointments, calls and other activities on-line everywhere and anytime.

5.3 How can mCRM help to improve user satisfaction?

Mobile CRM can improve the quality of information and services and also enhance the productivity of an employee and save money, time and effort. These are all factors that have a positive affect on customer satisfaction. The end users agree with suppliers and reseller that the usage of mCRM can improve the satisfaction level of the customers. Mobile CRM can improve and give better service to customers and thereby give loyal customers with long term relationships. However the users also argue that their efficiency also depends on their knowledge of the system.

5.4 How do the answers differ in the various roles of the value system?

There are answers to the questions on mCRM that are the same or similar amongst three roles of the value system, i.e. supplier, reseller and user. However there are also answers that differ. Here follows the examples on different answers from the roles on the value system.

Training

The reseller Cygrids states that there is training available but it is an ad hoc process. At Miljöcenter the sales employees needs to learn how to use the system more. They only use ten percent of the Pyramid Mobile Office. They can place an order and that is it. At Happy Accessories there are problems with Pyramid Mobile Office, which sometimes are real bugs and sometimes are caused by that they do not fully understand how to use the system. Happy Accessories thinks that Pyramid Mobile Office should be more user friendly and easy to use. These answers differ and contradict each other, since the users of Pyramid Mobile Office need training and have difficulties in using Pyramid Mobile Office. However the reseller say that Pyramid Mobile Office is easy to use and that training is an add hoc process. The supplier does not know how the users use Pyramid Mobile Office. It is good opportunity for Unikum to start a training service, which all parties in the value system could benefit from.

Off-line

The supplier Unikum claims that off-line was used 6 or 8 years ago and that there are always many problems with synchronization. The reseller Cygrids agrees with this information stating that off-line was pretty usual 5 - 10 years ago and also mentions problems with synchronization. The user Miljöcenter does not allow anyone to use off-line since it does not work. The traveling sellers at have a big problem with the calendar , since Pyramid Mobile Office do not synchronize anything except for outlook and then outlook synchronize the phone, which is done on-line local area network and not on-line Internet. It becomes worthless, since the sales staff who never visit the office can not synchronize.

The opinions of the supplier, reseller and user are similar. There are problems with off-line that could lead to a faults in the information used in the daily activities. It is interesting that the supplier states that off-line works, when there are many problems with synchronization, which has stopped Miljöcenter to use off-line.

5.5 Summary of research

The purpose of this research is to identify net benefits of mCRM for users by comparing what suppliers and resellers say and what users experience. To address the purpose, the main research question is: “Which net benefits can usage of mCRM give the users?”. In order to get answer of the main research question and consequently to achieve purpose, the researchers has divided main research question into three sub research questions and used six dimensions from DeLone & McLean IS Success Revisited model (2003). These six dimensions work as factors that affect the net benefits realized by users as well as provides a base of measuring benefits. Based on these six dimensions, six propositions are developed which are supported or deny by empirical data. The empirical data are gathered from Unikum – a supplier, Cygrids – a reseller, Oracle – a supplier and a reseller, Miljöcenter and Happy Accessories – users. In addition, how the result of theses six propositions are connected to sub research questions and consequently main research question is shown in table 2.1 (Section 2.4). The major net benefits, experienced by users, from the results that are derived by testing propositions are:

- mCRM enables real time data access to employees or customers.
- mCRM enhances information quality.
- mCRM makes service to customers easy, efficient and fast.
- mCRM enhances productivity and performance of the mobile employees of an organization.
- mCRM increase profit of an organization by saving efforts, time and money.
- mCRM gives loyal customers with long term relationship by enhancing customers’ satisfaction level.

However, there is one proposition from six propositions, which is not experienced as a benefit by users as said by suppliers and resellers.

Proposition 2: Mobile CRM system implementation and maintenance are easy and require little effort to do and are easy to use.

The reasons are complexity level of an application, technical limitations of handheld devices, user training of the system, users' own capability to adopt technology and users' knowledge about the functionality offered by the system (Section 4.1.2).

5.6 Overall results

The mobility initiative in CRM can give net benefits to organizations that have the knowledge to utilize its functions. Net benefits as enhanced productivity, performance, profits that are promised by the suppliers and resellers can be met. The marketing message matches well with what the providers and resellers state and also with the benefits users are enjoying practice. However, the degree of experiencing these benefits varies among different users. The reasons for the variation are training of the system, users' own capability to adopt to the technology and users' knowledge about the functionality offered by the system. The negative side of mCRM is its technical limitations. These limitations also affect the realization of mCRM net benefits. However, they are not strong enough to close the mCRM opportunities because day by day technology is improving.

5.7 Contribution and further research

In the race of being mobile, mCRM is one of the fields who attract the users. The purpose of this study is to investigate whether the promises made by the suppliers and resellers are realized by users in practice. From this study, the authors can say that promises given by suppliers and resellers that mCRM can enhance the productivity, performance, customer satisfaction and hence profit is not only on paper or not only as a marketing slogan. The users are also enjoying these benefits.

By this research the authors have tried to feel the gap in scientific literatures of benefits of mCRM, though researchers believe that this study requires further research. In this study, the researchers have interviewed suppliers, resellers and users who are selling and using mCRM solution for small-middle size companies respectively. Further research can be done for mCRM solution requires in complex and major organizations. In addition, users who has interviewed have experience of mCRM applications no more than three years and still unaware of functionality offered by the mCRM application. In future, there is an opportunity to interview users who have enough experience of using mCRM applications. It will give enough strong empirical data and improves validity and quality of the research.

In data analysis section, the researcher came across contradictions in the perspective of suppliers, resellers and users. These contradictions are related to technical aspects of mCRM.

One of the gaps is because of technical limitation of handheld devices, specially their size. This gap has opened a research space for improvement in handheld devices as well as in application. Application should develop in such a way that reduces the entry of information from human. It should provide more visual data such that it can be easily referred and reused. In addition the problem of network can be solved by developing such application which has hybrid functionality of online as well as offline, i.e. automatic synchronization mode. By hearing voice of users, suppliers can develop mCRM application that will match their needs.

This study gives reasons for implement mCRM in the organization. However, further research can help organizations to identify area which can take optimum benefits of mCRM and stream line their business processes.

Appendices

A1 Interview guide supplier/reseller

Please describe your current role?

What do you think about mCRM?

What is meant by mCRM?

How will mCRM influence the user's way of working?

How can mCRM help the end to improve user satisfaction?

Which advantages and disadvantages does mCRM give the users?

Which net benefits can usage of mCRM give the users?

How does mCRM help the user to achieve accurate information and to deliver up-to-date information to customers?

How will the users experience the system?

How does mCRM help employees to give service the customers?

Do you allow us to present your name and name of the company in our study?

A2 Interview guide user

Please describe your current role?

What do you think about mCRM?

What is meant by mCRM?

How has mCRM influenced your way of working?

Which experiences have you had with mCRM?

Which advantages and disadvantages does mCRM give you?

Which net benefits can usage of mCRM give you?

How does mCRM help you to achieve real-time and accurate information and to deliver up-to-date information to customers?

How was your experience with the system?

How does mCRM help employees to give service the customers?

Do you allow us to present your name and name of the company in our study?

A3 Interviews and questionnaire answers

We have done five interviews face to face that are transcribed below.

A3.1 Unikum

Company: Unikum

Role: Reseller responsible

Person: Johan Svensson

Date: 2011-04-28

Gargi Varu: As some background of our thesis.

Johan Svensson0: Yes.

GV: Mobile CRM. Currently in the market, the uses in the market the usage of the mobile is increasing and everybody, even in the organizations they are very quick to mobilize.

JS1: Yes

GV: They start initiatives of mobilization. So we are interested to know how this mobile CRM particularly in the mobility activity, mobile CRM has changed the view of the organization and how the usage of CRM maps to the organization and industry.

JS2: Yes. OK.

GV: We are eager to know it comes true with this. Here we are.

JS3: OK.

Leif Nordstrand: The foundation is CRM, Customer Relationship Management and then what our topic is mobile CRM.

JS4: Yes.

LN: What is your role?

JS5: I have a couple of roles. One of them is speaking partner to our resellers in Sweden. We have about 60 resellers from Malmö in Sweden in south to the north of Sweden. I am speaking partner to two thirds of the resellers. I have colleague in Gothenburg who has the other third.

LN: OK.

JS6: I am placed at the market unit. Also some kind of in-house seller, a sales person.

LN: OK.

JS7: We do not sell to the customers, our resellers do.

LN: OK.

JS8: All the selling work is done our thereby our resellers.

LN: OK.

JS9: So we are in some way producing. We are just programming and selling our Pyramid to the resellers who do the work out there.

LN: Yes, so you are a whole seller of Pyramid.

JS10: Yes, but we are manufacturing and programming it in this house.

LN: OK, good.

LN: Mobile CRM. What are your thoughts about that? What is it to you?

JS11: The Pyramid contains about 50 modules.

LN: 50?

JS12: Yes, and one of them is CRM and we have also mobile CRM, which allows you to bring it outside. You can work off-line or on-line. And you can today use the mobile phone for getting some mobile CRM in iPhone and Android.

LN: OK.

JS13: It is one of the modules in the whole ERP. The most common customer has about ten users of the system and how many on the market use CRM. One or maybe two and that our customers are small businesses, and the usage of mobile CRM is, I think, different of that customer than from if you talk about big factories. And I do not know if you have thought about that dimension of the usage of CRM. If you have a big selling organization, where sellers are always outdoors, one setup...

LN: OK. One way to do it...

JS14: Yes, if you are a small company then you use CRM in another way. Most of customers use it as a documentation system for the business processes. But there is some using it also as if you are in tough selling situation. You call customers five times every hour. You can use it for that too, but that is not our focus.

LN: OK.

GV: Yes, as your expert view. How shall you define mobile CRM?

JS15: For us it is: You have your laptop and there you can document your work out on the field, every visit to the customer you can write it down on the laptop and you can put, if you are on a visit today and you should call them in two weeks. You make a note in the calendar that you should call him or her back in two weeks and your computer/Pyramid tell you to do that. You can have it in your to do list. Was that an answer to your question?

GV: Yes.

LN: You also said it can be used on Android and iPhone .

JS16: Yes.

LN: Do you do, maybe it is the sales people who do that, but do you get feedback on the satisfaction or do you a study saying how satisfied they are with mCRM?

JS17: No, not structured feedback. Because our CRM is one part of the whole ERP system.

LN: OK.

JS18: We deliver all the program.

LN: OK.

JS19: You change. You buy a new ERP every seventh or tenth year.

LN: Yes.

JS20: It is a long, very long usage of the ERP system and that feedback is not relevant. You have a complete solution/ ERP system including CRM.

LN: OK.

JS21: Some of our customers use another CRM. Because they have other needs than we can deliver.

LN: OK.

JS22: But very many of our customers use our CRM.

LN: OK.

JS23: But they are in average 10 users total in ERP system.

LN: For each company?

JS24: Yes for each company. And we focus on small businesses.

GV: Yes. According to you, what are the net benefits for your customers if they implement mobile CRM in the company?

JS25: We really do not know how they use it out there. We are programming it in this house and we do what our resellers tell us what they need. We have a support department in this house too. And our customers call us and talk about many details in CRM for example. We listen and note it in our database, which points we should develop further.

GV: So based on these needs, can you say like what type of, means like what the customers are demanding? Means like in which areas they demand mobile CRM?

JS26: You mean what the customers are making or what they are selling?

GV: As you said that from your support department you studied the needs of the customers, and based on it can you say in which areas the customers are facing problems and where you provide solutions in the form of mobile CRM?

JS27: Mm, it is hard for me to answer that question.

GV: OK, no problem.

LN: Yes, I was thinking maybe we can ask to get some names on resellers and ask this to them.

JS28: Yes, you find them all on our home page.

LN: All, OK.

JS29: At www.unikum.se.

LN: OK.

JS30: But we can talk about it also.

LN: Yes. But as I understand you when it comes to advantages, benefits and disadvantages of mobile CRM it is hard for you to answer them because you have the system, but it is the reseller who gets that feedback. Still you have developed the system here. So you must have some kind of points. These things we need to have included otherwise we will not meet the customers' needs.

JS31: Of course we have. But I do not join these meetings in this house.

LN: OK.

JS32: I am in the market department and we are a production factory, programming yes.

LN: OK.

GV: OK. So in the market department, if they are using mobile CRM. So how has it impacted the work of the marketing people? What are the tasks and functions they can facilitate with mobile CRM?

JS33: Yes, they can make all the notes you need for documentation or sales visits. You can look at all the invoices if the customer is paying their invoices. You can look at your order stocks. You can look at the calendar, if you are inviting your customer to the factory or to your office. You can look at which persons are free next Thursday at nine o'clock. You can book a meeting in your phone or laptop.

LN: Do you get, because you have a system with maybe a long development time. I assume you release a version every 6 months or once a year. What is the period and how do you?

JS34: New version every second year.

LN: OK, every second year.

JS35: Yes, every second year. And in between we have a service pack

LN: Yes, OK. And these go to all customers to yes or no or you recommend them.

JS36: We recommend them to take a new service pack.

LN: And then they have to say yes or no.

JS37: Yes.

LN: And pay for it?

JS38: No service packs and new versions are included in our service agreement. They pay every year for the support and the new version.

LN: OK. There you have quality; you look at the quality from like the information quality or system, or the product itself. How it runs and can you comment on that?

JS39: Yes, customers call us to our support and there they tell us the problems and we notice these in our databases and make the changes needed and necessary.

LN: Yes, like a change request.

JS40: Yes.

LN: OK.

JS41: And say four, five times a year we make a new service pack, including error corrections.

LN: OK.

GV: So, it means, this new version is applicable to older versions and customization, how do the customers feel about the customization?

JS42: They tell us when they call us to our support department if there is something that it is not good, but things that are good, they never tell us because when they not call us it works OK. They call us when it is not working. That is how it is in this kind of business.

GV: It means. I want to say like, often customization problems or maybe it already a case, it is few the frequency of the customization problems the customer face, is a very high level or it is OK, meaning it is normal, some of the problems can of course comes up and.

JS43: If I got it right. If many customers tell us the same thing, it is important for us to make a correction or to make it better, and if one person or one customer tells us: 'I need this' and only one. No we put it...

GV: Lower priority.

JS44: Yes. The number of questions in the same area that is what we, these points we develop new functionality.

LN: Do you go out and sell these to new customers? As I understood it you inform your resellers and they sell it.

JS45: They sell it yes.

LN: They have like these, because a sales person needs to say these things are really good with our system. They need to, that is my experience, sell it in. At least explain the advantages of it. Do you this information available.

Maybe it is available on the home page. It would be interesting to see what are the key selling points?

JS46: I can get some brochures.

LN: OK.

JS47: Can I get it now?

LN: Yes. OK.

Johan Svensson is fetching some brochures for us to look at.

JS48: We do not have anything in English.

GV: OK.

LN: We were discussing that it would be good if could ask someone who is selling this, like I said before, like a reseller,

JS49: Yes.

LN: and maybe also to see, when you get this list of change requests, you prioritize these, and give some kind of feedback that is saying what things are not working as they should. We could talk to some, if it is possible.

JS50: Yes, you find them on our home page.

LN: Yes.

JS51: Then you can call them. I do not think I can help you more.

LN: OK.

GV: Which are the modules you are developing?

JS52: Yes. There are the...

LN: Main modules?

JS53: Main modules, yes. One of these is CRM.

LN: Sales support?

JS54: Yes and then we have...

LN: Additional modules?

JS55: Yes, additional modules. Here we have what we call mobile office. That is a part of the whole CRM. You bring it with you. You can work off-line, on-line and then you have other mobile.

LN: Phone edition?

JS56: Phone edition, yes. You can reach and answer question of invoices, paid or not, order stock and so on. You can have it in your mobile phone.

LN: Can we find if we look on the Internet or here the functions of these and the differences of these?

JS57: You can read about it. Here we have the CRM. Here you can read about the mobile office, where you can work on-line, off-line or...

LN: This is mobile office.

JS58: Yes.

LN: And there is mobile phone edition here as well. Because it seems to be quite new.

JS59: Yes, it is quite new. It is...

LN: Is it a part of mobile office?

JS60: Yes it is a part of the mobile office concept yes. On the Pyramid at your office you must have CRM office, then you can mobilize, by these modules.

LN: Yes.

JS61: You can see it in your telephone.

LN: I do not see it clearly on this list what the mobile phone edition can do, and web edition. Here is some kind of summary.

JS62: Yes.

LN: Here we can see.

GV: According to the pictures you have specific applications for handheld devices also. So can say which type of functionality? Which type of tasks?

JS63: These handheld the PDA, is that Swedish or English?

LN: It is both Swedish and English.

JS64: Yes, you can, when the truck comes with the goods, you can read the bar code, with these, and the stock in the Pyramid rise with the amount that arrives here.

JS65: You can also do stock inventory. What is it called?

GV: Stock management?

JS66: Yes.

GV: Inventory management?

JS67: Yes. If you go out in the warehouse and count you have 10 of these and 45 of these, you can type it in here and correct the limit.

LN: The actual storage.

JS68: Yes, that is what we use these for.

LN: And you developed the software here?

JS69: Yes.

LN: And the hardware you just buy.

JS70: Yes, we just buy it. When you should pick on the warehouse, you can read here that I should go to this place and then you see here you should pick three of these and you type it in that you have picked three and then it goes in the air to the Pyramid, the ERP system.

LN: OK. So you know what is in the storage?

JS71: Yes.

LN: OK.

JS72: Instead of having a piece of paper where you write down now I picked 3 of this and 45 of this, you use the PDA.

GV: Is the an organization with the main system?

JS73: Yes, it is continuously contact with the ERP system.

GV: So is it like wireless?

JS74: Yes it is wireless. If we look here, which is home work order.

LN: Is that the work order?

JS75: Yes, it is the work order for the mobile, for service person, driving away. He looks in the phone for what to do and report which spare parts he has mounted in the device.

LN: Yes, and what time he has used as well?

JS76: Yes.

LN: So you have mobile signature, I think this is?

JS77: No, not mobile signature.

LN: It says approval, mobile approval, approve your delivery through your laptop or mobile phone.

JS78: No, that is another.

LN: OK, that is a different one.

JS79: Yes, that is to attest delivery invoices.

LN: Yes, when they deliver something to say that it has been arrived.

JS80: No, it is the invoice from your supplier, you can look at it in the phone, but it is hard to look at an invoice in your phone, but it works.

LN: It works, but is very small.

JS81: Yes, it is very small. You can do it. You can also make the attest in the browser on the screen, it is better.

GV: So you can say it is one of the limitations of the mobile application.

JS82: The size, yes.

LN: But then we can look at this mobile sales, mobile support and that is also time they have. I think we have got many answers, but I still...

JS83: But they are not your real questions. We cannot answer here.

LN: I was thinking. You say, it is OK for us to contact people ourselves directly, as we find on your...

JS84: Yes.

LN: We contacted one from Miljöcenter and we will visit them on Tuesday and we also tried to contact a guy from Cottex, but he was hard to get hold of, so maybe we could try to reach someone else.

JS85: He is not very much at the office, I think.

LN: So it is OK.

GV: Anything you would like to share your experience with mobile CRM or anything, will be good thing about mobile CRM or some extra point of mobile CRM?

JS86: I do not use it as mobile CRM. I use it for documentation, for business processes, I am involved in. But it is the same if you are doing it on the office or mobile. It is the same job you do. I think it is so. You want to look at what it looks like?

LN: Yes that would be nice.

JS87: Then we walk downstairs to my room.

LN: Yes.

GV: OK. What do you think about documentation for example you do on laptop, on PC and same thing you do with your mobile. So what differences do you see? Do you find it more flexible, easy or maybe is something hard for you, or something you do not like?

JS88: I usually do not use it. Here you have this meeting. Here I can make a new appointment. Yes, that is what it looks like.

LN: And this is the system, the software you have developed?

JS89: Yes. Here is graphic. Next week we have a little bit more than 80 persons coming to our release of the new version. And I have...

LN: Many applications.

JS90: Yes.

LN: How many are using this mobile phone CRM? Because you sell a complete system, maybe it is hard for you to say exactly how many but are you aware?

JS91: We know exactly how many each module, each customer uses.

LN: OK.

JS92: We have this home work order. One of our biggest customers, they are buying a little bit more than 100 licenses for the mobile zone, report when they are ready with the service.

LN: Who is that customer then?

JS93: Swesafe.

GV: Through mobile it is easy to get information about self services like order and invoice. Then what about means like security, because?

JS94: What about...

GV: security?

JS95: The technical security?

GV: Yes, means data can be... It is mobile phone and anyone can... and if something, if laptop och PC, that you login and password, in mobile there is general applications sort of, normal that are in all the phones, so how can specific applications can be protected.

JS96: In all the mobile phones it is browser that you use. There is no program in the phone. We use the browser, safari, in this one, iPhone. And in Android it is another one. There is no program in here. It is just a login to the server.

GV: This means that it is easy to launch.

JS97: In the browser yes.

LN: It is a web application.

JS98: Yes it is a web application.

LN: But a different screen and interface.

JS99: Yes. And this is also a web application in this PDA.

LN: OK. So you have a sim card or something similar?

JS100: Yes here we have a wifi.

LN: Yes.

GV: LAN card, wifi and wireless communication.

LN: OK. I have no more questions. I think we have got many answers

GV: Yes.

LN: I think, this is our first interview, so it is good practice for us and we have got many answers, and I think we need to...

JS101: But I cannot answer your basic question. What the net benefits with mobile CRM.

GV: OK.

LN: My understanding is that we then need to contact your reseller. But would you say that it is someone within this building who could answer that, or it is probably not or what? Or is better to contact the reseller?

JS102: Yes I think so.

LN: You are not producing sales material here.

JS103: No. This is what we produce.

LN: It is more like descriptions of the functions you have.

JS104: Yes.

LN: Can we refer to you, your name, in the...

JS105: Yes, I want you to send it to me first so I can read it.

LN: Yes.

JS106: So we have understood each other.

LN: Yes. What is your title?

JS107: I am at the market department, responsible for resellers. I think we go downstairs to my room.

LN: OK.

At Johan Svensson's office. Johan Svensson is presenting Pyramid to us.

JS108: This is our business intelligence. You can see here. You can make graphics on almost anything, on any figures you have in your system. Here you have ground modules. CRM is one of them. You can look at the CRM system in these menus. My Pyramid. Here you can reach what to do today, your calendar, your points what to do. You have got the list. You can send internal messages within the Pyramid. You can look at your...

GV: emails?

JS109: Yes. You can organize your...

LN: Work groups?

JS110: your work groups, yes, your fellows at the work into different... you have programmers, supporters and you have economy and so on. You can look at all your notes in a structured way. You structure notes in folders. You can look at statistics for different things and so on. That is one way to look at a CRM system. If you choose the points one at a time, you can look at the calendar here. This is now my demo system. It is not my working Pyramid. And here you can see all the persons or resources as a pair of hedge scissors or ladder.

LN: Material as well?

JS111: Material, yes. And this calendar is what we use for the mobile working orders. To look if there is a service person who can go to the customer on the 12th of May for example. You can look at the calendar here and make a reservation. So the CRM system in Pyramid is not only for the sellers. It is for use to book rooms or material or anything. We can go over to... No we go back this way. If I got an email from Barbro Josefsson. We open it. I can take this email into the Pyramid as a documentation of something. Here the Pyramid finds Barbro Josefsson, in our CRM system, using the email address. Then you can write things here. You can put in a file or

a sub file and you can make references to almost anything that you have in your ERP. If it is about an invoice or an...

LN: Personal, company or contact?

JS112: Yes. Then you can find if you have comments about this article...

GV: Object?

JS113: Yes. If Barbro has any comment about this, I relate it to the article number of this and then you can look in the Pyramid after all comments of this item number.

GV: OK.

LN: So put in a way to structure the information?

JS114: Yes, you can relate it to this and you can put in a file or sub file.

LN: An activity.

JS115: Yes, an activity. That is what I tried to talk about earlier, about documentation, business processes. All these things you can do when you are off-line or outside the house on-line on Internet, yes.

LN: As I understand you it is one system, it is not a separate system?

JS116: No.

LN: It is one system and it all works together?

JS117: Yes.

LN: OK. Different access points but it is the same?

JS118: Yes.

LN: But you have only Swedish customers?

JS119: Yes. It is a Swedish system for the Swedish market. And we follow our customers who factories abroad, so we have an English version.

LN: You do?

JS120: Yes. But we do not sell it in Germany or any other countries.

LN: OK.

JS121: We follow our customers with an English version.

LN: Is it the complete same functionality, just a translation of the menus?

JS122: Yes.

GV: It seems you have very structured information. All your product and everything.

JS123: Yes.

GV: So one can analyze it and make a judgment on it.

JS124: Yes.

GV: Based on its production.

JS125: Yes. It is a complete ERP system, so it is not a CRM system, no. It is but it is just a little part of it.

GV: Yes.

JS126: And that is one very important selling point for us. If you have one system and you have supplier for the whole.

LN: OK. I have no more questions. I think we have got a good view. Or if you want to add something. Or if Gargi want to add something.

GV: Yes, by seeing these pictures, the picture becomes very clear.

GV: You said you can work off-line also.

JS127: Yes.

GV: And as by my understanding, because of wireless we can connect with Internet and we can access the information, but in off-line how?

JS128: Here you define which information you should take out from the ERP system at the office and bring it with you. You define which customers, which suppliers, which persons in your CRM system, which articles or item number in your stock you should bring with you out. And then you... the pyramid takes out all this information and transfer to your laptop, and you can work off-line with it. All the orders you type in when you

are off-line, when you come to the hotel in the evening you can press the button and send them to the office. That is what we mean with off-line.

GV: OK.

JS129: Was that an answer of your question?

GV: Yes. I get what you mean off-line, how it works in off-line.

JS130: But for 6 or 8 years ago, Internet was not that common, as it is today.

GV: Yes.

JS131: This technology is dead today, but it still works.

GV: Synchronization between two.

JS132: Yes. There are many problems with that, always.

LN: So you do not use so much off-line today.

JS133: No, with a modern phone to your computer you can work anywhere.

LN: Yes.

JS134: You do not need this technology.

LN: OK. In Sweden or developed countries.

LN: Thank you for your time. We will transcribe this interview into written words and then we send it to you, so you see what we have written down.

JS135: Yes. Here customer services. This information you got. You can...

LN: I have downloaded these

JS136: You have downloaded these.

LN: Yes, and I think I have sent them to you, given them to you (Gargi) as well. I have not read all of them.

JS137: But here you can find them. If you want to speak to Malmö. Here you have all our resellers. This is one man show. This Närkeconsult is one person. Cygrids, they are 15, 20 persons totally, 6 or 7 or 8 working with...

LN: And a sales person like that is only working for your system or are they selling other systems as well?

JS138: No, these are only selling our system.

LN: Quite a big organization. With all these resellers, how many are you then?

JS139: Approximately 60 resellers in Sweden.

LN: 60 resellers OK. You are 65 here, working here with development.

JS140: Yes. Resellers. These resellers, they are 15 or 20 persons totally, about 5 or 8 working only with the Pyramid.

LN: OK. But if we contact one or two of these, we can maybe get one or two interviews.

JS141: Yes.

LN: Get their views on some of these. Good. OK. Now it is time for us to go back and do our work.

A3.2 Cygrids

Company: Cygrids

Role: Account Manager

Person: Andreas Lindqvist

Date: 2011-05-02

Leif Nordstrand: Our topic is mobile CRM and to see which net benefits it can give? Which advantages it can give to users? What new it can bring? If it is any new or if it just the same or maybe it caused trouble or not solve anything. This is what we have to take both sides so to say. Because I understand there are new things but they have to, when something is coming out, as we have understood, a service like this, it has to work together with other services or habits of people using this other tool, which also has to work together and it is not so straight forward all the time.

Andreas Lindqvist0: So how many companies have you interviewed? Have you only interviewed Pyramid ERP system, or have you also some like, some others on the market.

Gargi Varu: Yes, and the opportunity if we get different views on different mobile CRM products, it is good, but still it is starting stage, so we first we go to Pyramid and follow them.

LN: So today, we have been interviewing Miljöcenter. They are a user. They sell fertilizers and gardening tools.

AL1: Yes.

LN: And I think they have talked to Cygrids but I think they have Iternity Solutions as a reseller. So at least we got some parts of the chain.

AL2: Yes.

LN: But you represent the middle part, the reseller. In these three stages, so to say.

AL3: Yes, OK

LN: So, maybe we should start. Who are you and what is your role in the company? What do you do?

AL4: Yes, so my name is Andreas Lindqvist and I work as an Account Manager, for this company Cygrids. So I have been there for nearly four years now, and my background is that I have a MBA from Lund, so I my first job was as controller, so I have like financial accounting background. So now my work is an Account Manager to, I mean I do not have the sole technical role, but more you know a, it is more of a sales oriented role, you know. Pioneering new models for the customers. Helping them to, I mean gain more from the ERP system and that could be like, because how much do you know about the Pyramid ERP system?

LN: A little bit.

AL5: A little bit.

LN: We have seen it from

GV: Unikum

LN: He explained it.

GV: He did show some of the screens of mobile office.

AL6: So he showed you like a live view, no?

LN: Yes, he said this is a demo, but he also showed live from their own company.

AL7: OK.

LN: But probably not everything but the fifty modules and explained that CRM is one module and so on. A little bit we know.

AL8: So the ERP system has 40 or 50 modules. So it is obviously an ERP system with CRM connectivity to it. It is not the other way around. It is not a CRM system with, you know, invoicing and so on. So it is like the other way around. So, my work is, you know, making sure that our customers use the system on such a high level as possible. So they buy more modules and more consultancy hours and we also do our own programming for the system and our new features and so on. So it is my role, you know, to see, OK, could we do that and could we do that kind of solution, and make solutions and someone else hopefully can solve that. Usually it is doable. So that is my work at Cygrids and also to sell new ERP systems to prospective customers.

LN: So, mobile CRM. What comes into your mind when you think about that?

AL9: You know, today I was thinking about OK, mobile CRM, you know,

LN: Your first thoughts.

AL10: Yes, from a philosophical standpoint.

AL11: What I first was thinking about is that, you know, you can have like the Pyramid specific, like you know, we are working with on a day to day basis and then you can have like OK, what I think about it, you know, like in general. So should we start with the specific or the general?

GV: The general.

AL12: The general. OK. So when I am thinking about when we talk about mobile CRM is that, I think we can divide into two separate pieces, the one being, you know, having an easier time, like placing orders or quotations, like doing it real time whenever you want, where ever you want and so on. So making it like, you know, you will see it as lower transaction costs, like that is one thing. Helping with, you know the business flows more streamlined. That is like one thing. And the other thing is obviously information, like if you have a mobile

CRM system you can, kind of depends of what ERP system you have but the CRM module is like fully integrated in the databases, like in our system, meaning that, like every information you have from your ERP system, Pyramid, you can access in the CRM system, that meaning like everything.

GV: Yes.

AL13: Yes. So obviously if you look like in the real world, you know it could be, small simple tasks, that could be really crucial, in different situations, like where is a shipment?, for example. Is it delayed or something? I mean you can always check that in your ERP system, but now you can also check it from your cell phone. So, I mean, if your customer calls you. You can check it directly. And you will hopefully minimize the hassle. So like information is really important, but I can think that it is different, from different systems because Pyramid, I do not know if Johan told you. It has real time connection.

GV: No, he did not tell us.

AL14: So you have like, you have like systems where you have to sync your data, right. You have like a mobile client or something, perhaps a phone, and your sync your data. And obviously when you sync, you do not which one has the latest information, so then you have like different versions, if you sync with your CRM system. I do not think it is that common, like this day, but it was pretty usual like 5 - 10 years ago.

LN: Yes.

AL15: So Pyramid it is always in real time. So we have like three platforms like. You have seen one, the web interface.

LN: Yes

GV: Yes.

AL16: Yes.

GV: Yes, web interface they have shown and PC only.

AL17: Yes, the client based solution. But the client based solution, was hot like 10 years, and you know, you could sync data. It was when 3G was not very common, but now you do not want to sync your data. Because when you sync, it could sometimes go wrong and then you will have error in your database, and you know it is not very pleasant. Anyway, I mean, obviously the trend towards being in real time and with Pyramid you will always get that. So, I mean, even if you go on-line with a browser in the system or in a cell phone, you will actually go inside the data base. Obviously there are some layers in between, but what you see is always the same as if you were in the office. So, that is the two main things. I mean you should obviously question me on this if you would like. But I think that is, you know, streamlining and lowering the transaction costs and having like every piece of information, and that is always a good thing.

GV: According to you, what are the net benefits for the organization if the implement mobile CRM. Yes you said that strong information, real time information through the business flow. But what are the opportunity area they can enhance? If in an organization they are using very common packed or software CRM, traditional CRM.

AL18: Yes.

GV: What are you going to suggest, if they are implement mobile CRM, in which way they can enhance their, means in which area can they implement it and get the benefit from the mobile CRM?

AL19: I think that you will, I mean, if you have, like, if you compare having like traditional CRM system only accessible in the office. Obviously you will enhance the quality you can bring to the customer. I mean it is so obvious, because you will have the same information. But people today travel a lot. I think that. It is a hard question to answer, but I think in the bottom line. I think you should be a little bit more specific.

GV: OK.

AL20: In a certain part.

GV: OK. Which types of facilities can mobile CRM give employees that are using daily travel or means like. They have to face daily customers. How they can enhance their work by using mobile CRM? How it is beneficial to them? In their way of working, in the terms of time, in the terms of costs, in the terms of productivity or performance.

AL21: In terms of productivity, I think it is for the customer, you do not have to call the office, you can, you know, bring the information you want yourself, and that means the customer will get probably what they need

faster. So I mean, productivity wise, obviously they will get information faster, but I think how it will affect the customer is that the company will have, I mean if you compare not and having it, that they will have more satisfied customers, because they can always, you know, I mean, for example in our company, everybody has, because we can just, you know it is a web site. So you know it happens sometimes that customers call and you know, where is that?, or you know and I can just look it up instantly, and obviously they will be more happy because they know they can call me and I will give them an answer. And not, you know, I will call you back in two hours, and then you perhaps will forget it and, you know, they will come again and maybe not that happy that time. So is that not what CRM is all about, like enhancing customer satisfaction. It is hard to talk about productivity in numbers, you know.

GV: Yes, of course.

AL22: I mean, I have looked and tried to figure out you know, like how can you enhance productivity with you know, with a better CRM or ERP system, but you know it is hard to find that kind of information because it is so hard. I mean should I look over your shoulder and clock it when you.

GV: No, I did not mean you. You are a reseller, so you always get feedback from the customer. Based on that feedback of the customer, approximately you can say the result of the mobile CRM.

AL23: Yes, I mean, what, you know

GV: Or maybe in the sense that customer is asking for you, we want this type of functionality or something. We are facing trouble and they can ask mobile CRM is the solution for this problem. If such type of area is the, because the system we are developing and who are using are developed them.

AL24: Yes. I am not sure, I think this would fit, you know when we talked about the mobile CRM. One thing about this is, and I think it is connected to the CRM is the business intelligence. Because you know you have a... It is really no news that you have so much information in your ERP system. You know it is like a data mining kind of tool that you just can go in, and you know to you know have a different comparison between forecast and budget, and you know how do we do from year to year, month to month. Here I think, if we look to what the customer wants that is usually on a management level. They want the information, but they do not want it like in raw data, like a spreadsheet. They want to see a nice graphic picture. Is the trend like this? OK. And if it is revenue, it is nice. If it is on the other way, maybe you should look in different things, so that I can say is mobile CRM connected to get your data on a simple level. I mean it could be advanced numbers, but you get it like... Have you heard about business intelligence?

LN: Yes.

GV: Yes.

AL25: Like a dashboard. It is spread sheets. I think that is the most sought after feature in the mobile CRM. Getting the numbers but it should be really easy to understand them.

GV: Yes, up to now, data mining requires a lot of application processors and everything, so it is possible to do that kind of things, means like the smart phones are enough to do that computation?

AL26: What, say again please?

GV: Business intelligence, like data mining uses lots of computation and processors and all that stuff. Are mobiles enough to show that, they have enough computation power or are there any restrictions?

LN: Can you do it in this?

AL27: Perhaps. Let us see.

LN: The laptop has a higher performance processor. Excel is like the minimum of business intelligence.

AL28: But this just a picture, a view world. I mean it is just a picture. It does not compute in the phone.

LN: Even if the first understanding is that the android or the iPhone phones, they have good connection to the Pyramid or the mobile CRM, they are more like a viewer?

AL29: Yes.

LN: And not so much an input device?

AL30: That is correct. If you have business intelligence, when you are in the office you have to figure out, OK, what are the numbers I am particularly interested in. If I work with sales, obviously sales is my thing perhaps. And if I am working with invoicing or other stuff you would like to see.

LN: But is a client that runs on a server somewhere and it should be accessible to a laptop. I would like to look at 2007, 2008. These things should be possible to enter, or it is just a viewer of preset figures.

AL31: Yes, it is only a viewer. Everything happens in the system.

LN: OK.

AL32: So what you will get in the phone is...

LN: Something done at the office before?

AL33: Yes.

LN: OK.

AL34: So you will do all the setup in the office, like what you want to see and then you can setup the system how often it will update the data. Because if you look at transactions. You do not want to do it every minute because then you will just sink the entire system. You have to be a little bit..

LN: careful what you do.

AL35: Yes, obviously. But you do whatever you want to do, and then you can look it up in the system or you can look it up in the phone. And I am not sure why it is not working here. But did you see the business intelligence. I can show it.

LN: I did not see it there, but I have seen at other companies, where I have worked before.

AL36: OK, but did you see the Pyramid?

GV: No, in Pyramid we did not see

LN: He started off, this is our business intelligence. It was not like the graphs. He did not go in to it.

AL37: OK.

GV: He did just show first and he did not go into the details.

AL38: OK.

LN: But I have seen it before.

AL39: You can see it if you want but if you.

GV: I have also worked with different types of business intelligence.

AL40: OK.

GV: So I know what is behind it.

AL41: OK. But should also bear in mind that it is not so common today that the ERP system has an built in BI system.

LN: OK.

AL42: So I think it is only Pyramid today that has it. ClickView, perhaps you have heard of. It is really big. They are actually from Lund, but I am not sure today that they have their headquarters here but it is one of the most prominent BI systems, but it is really complex and it is also for the larger companies, that maybe have a couple of hundred different companies that they have different data bases and they take all the data bases and put it in. So, but Pyramid is for smaller companies.

LN: Yes.

AL43: And they do not want to invest like two hundred or three hundred thousand in their BI. Because it is not perfect in Pyramid in anyway, but it is free and they will continue to develop it. So today you have for example they have developed an iPhone app for the BI. So today I think it has been around for roughly less than a year. But in the application you can watch and you can click and you can go deeper in to the numbers, like on graph and perhaps it is sales graphical on something, and then they you click and what kind of.

GV: So except Pyramid the bigger suppliers of mobile CRM they have this facility?

AL44: Yes.

GV: If you want specific data, as you said work for sales, I want the report on such and such figures, then I get that if I want, 2007, 2008 based on some criteria?

AL45: Yes.

GV: And then I go do from the mobile also?

AL46: Yes, and it is really simple to get it.

GV: Any complaints on the client regarding customization or upgrade process? I mean it is a very critical process.

AL47: Yes.

GV: Related to ERP whether it is any type of form, whether it is software or it is packed traditional. But when it comes with the mobile CRM...

AL48: Yes.

GV: Because it is connected with the existing system

AL49: Yes.

GV: So anything that is customized on existing system upgraded, it will affect the mobile, the application running on the mobile.

AL50: Actually I can see if I can get it to work. Sometimes I have this test and sometimes they close it down for no reason. Let us see if I can, otherwise we can look in the... OK, now it works. This is the mobile, the phone.

Did you see this? No?

LN: He showed us at Miljöcenter. A little bit. Not fully but I have seen this before.

GV: Just the calendar.

AL51: OK, the calendar. So here, it is for our test environment, but to answer your question, with upgrades and how it works. You have it on IIS server and it is a obviously you can in some of the functions you can change what kind of data roads, fields, data fields you want, but this kind of platform is static. You cannot do like... You implement it on the web server and when you do that it is really simple. You put it up with the firewall and so on and the exceptions and so on. But once you have done that, since you go through a web site, you do not have a specific client you need to install. So the only thing you have to do is you have the setup in the Pyramid system and then you put up the web server and then it just runs. I think that is the real big advantage. In the future everything will go through the web.

GV: Because when customization upgrade is going to start then system will be down, one day or maybe two days. It depends on the system how it is large and complex. So it will affect working through.

AL52: OK. So I did not have any BI tickers.

LN: But through here you can enter new customers, new contacts and this will automatically update the system. Or is this just a viewer these are the contacts I have.

AL53: No actually you have...

LN: Edit mode?

AL54: Yes you have.

LN: Which is on-line?

AL55: Yes and working.. So for the phone...

LN: I get different understandings every time I hear something. No it is a viewer. OK. But then I do not fully understand. Some parts are editable and some are not?

AL56: Yes. From this application you cannot put up a new customer, but you can put up a new contact.

LN: OK.

AL57: You know we have two levels. Like customers and contacts.

GV: Yes.

AL58: I can put new orders from a customer. I just pick up the customer. Make some adjustments to.

LN: Can this register bar codes or other codes?

AL59: Actually with the Pyramid system, you have two mobile systems actually. They are working in parallel. This is the phone edition. And what is so specific for the phone edition is that it optimized for running on 3G or 3GPRS. It is not a lot of pictures, and it is really fast. And if you have looked at other mobile systems, you know this is really fast, actually.

LN: Yes.

AL60: Then we have the PDA warehouse module. So that is more suited for handheld.

LN: I understand.

GV: PDA.

AL61: Yes, PDA. If you go in a warehouse.

GV: And just to click there.

AL62: Yes.

LN: And they have Local Area Networks, or something?

AL63: Yes, I mean you do not usually have it with you if you are in sales or something. But is obviously possible. So that has kind of a little bit different interface. Because it is made with that in mind that you go out and it looks kind of similar with the phone edition but it is not really the same. And if you a delivery, you have to be fast and you know it will print the invoice. So it is not really, I mean this is not a bar code scanner. If you could write an application for it. But it is not the thinking about the phone edition. Once again accessing information not so much inputting information, more than perhaps an order or making a new contact or something like that. I mean it is sensible also, because customers could put in new customers it could... Well actually I am not sure why you should not allow that, but it is also about... Because, when you register a new customer you have like a lot of fields to go through.

LN: Maybe it is not suitable to do on a small screen.

AL64: No. But on the other hand if you work from an iPad, like a bigger screen, I think that is another thing.

GV: This kind of application can also run on iPad.

AL65: Yes, it can. But we have the phone edition. We have the web edition. So the web edition is built with a bigger screen.

LN: With slightly different fields?

AL66: Yes, more graphics and you can... But I am not sure you can register new customers on the web application. But they are working really hard on that, and it will on a new version coming up this summer some where. So maybe we will see it then. With the pads gaining popularity, we will see more functionality, in the web application.

GV: What do you suggest to you customers to initiate mobilization in their organization? Which are the critical factors that the responsible for the initiative mobilization in the organization. Or any of the reasons you can list up?

AL67: For them to be more mobile, you said.

GV: Means like, mobilization means not only mobile phone?

AL68: Yes.

GV: Means like application can be, you take a laptop, it is one thing of mobility. But now more and more are using the smart phone and mobile users are increasing and mobiles are also taking some part of laptops also, as normal documentation and presentation also can be done in mobile.

AL69: Yes.

GV: What are the critical factors that force the customers to an organization to be mobilized?

AL70: So do you mean different aspects, why they will or want

GV: Yes.

AL71: Why they should be more mobile?

GV: Yes.

AL72: You mean from a practical. It always about competition. If everybody is mobile in your business.

LN: and you are not.

AL73: Yes, I am not sure how I should answer it otherwise.

GV: OK, no problem.

AL74: Actually.

GV: No, it is OK.

LN: We have talked about net benefits with mobile CRM, what net benefits you see with mobile CRM.

GV: Yes.

LN: And the benefits. Have you anything more to say about that, what the net benefits are, because you mention some, I think but.

AL75: Yes.

LN: Because you mention mobile office and mobile phone edition and what you can do and you can see business intelligence, and you can see data. If you are mobile you bring the information with you. You mention quite a few but is there something, this is really key as well or?

AL76: Yes, one thing also is the overhead. Because in some organizations you can see people sitting mining for information for other people. So a boss go in to an employee and say 'I want this and that' and they say 'OK I will bring that'. I mean that is not really creative thinking, because if you would define what kind of information you would like, because in the most cases it is fixed what they would like to look at. It is just get the actual figures that are interesting. But if you would take these people doing the static work and move them work into working more creative. They could also enhance their business; obviously you do not want to have any overhead, if you could choose.

LN: So the people doing the business intelligence reports, everyone could do their own report?

AL77: Yes, and then you would have it, and then you do not have to pay people for sitting there doing what a computer can. Because a computer is really good with crunching numbers and so on. But I am not about you, because you are studying informatics. But being like creative and analytical it is not the best what a computer can do. They do what you want them to do. So that I think is really important. And more and more organizations realize that now that you cannot have people sitting around doing. Obviously we do not have so much manual labor. Why? Because it costs and if you do not follow the competition you will vanish eventually.

LN: Do you see any disadvantages with mobile CRM, something this will not work with mobile CRM because it is... We have understood the screen size is sometimes...

AL78: Yes, the screen size could be an issue, we have seen that.

LN: And it seems like the network speed is also still, capacity wise, because you say not all the functions are here yet.

AL79: I do not think it has so much to do with, I mean if you take Sweden, in the populated areas you do not have any problems, but if you go to...

LN: Outside?

AL80: Outside.

LN: Rural?

AL81: The rural areas, maybe you have a problem, but I think Sweden has not that kind of problem, if you compare with other countries, where it could be a real... If you have 3G almost everywhere, but if you do not have 3G, you will have at least GPRS in most cases. But I do not think that is really an issue, because you can optimize the interface and so on. Maybe you do not want the big pictures in high resolution if you work with the phone. I think we will have the phone applications and more and more I think we will see iPad resolution thinking. It is not like phone. It is not like 20 inch screen. But it is somewhere in the middle. I think we will have that also. But I do not think that is a disadvantage, but I think disadvantage is obviously security.

LN: OK.

AL82: To my understanding it is not something in general speak of. But I have my whole customer register here.

LN: Is it there or is on a web server?

AL83: It is on a web server.

LN: And you should protect with a pin code or just a phone code? We talked about that with Johan Svensson.

And we got the answer it is a unique code for the application, but maybe it is not. If you can open the phone, you can access it.

AL84: Yes, I can.

LN: If you drop you phone somewhere and it is locked it is just a four or five digit pin code.

AL85: Yes, actually it is. So if I loose my phone or drop it and or just do like this (Andreas Lindqvist changes the screens back an forth with just touching the screen.) You can see that I am still in, and it could be really hurtful for a company to loose. If our competitors see our customers, they will try to gain them and so on. You never know.

LN: And all sales statistics?

AL86: Yes, and margins.

LN: Your business intelligence?

AL87: Yes, everything, so it kind of vulnerable at the same time very good to have. To my understanding, I do not think that a lot of people realize that it is really, really bad if you loose your phone. I do not know if you can look in cookies, if you pin code is there. But if you have it open and if you are not good with phones. I for example have android, so I can make calls. I know I need to log out, but it is not like everybody knows that, so I can just access it again, like that. But maybe I can miss it sometimes to log out.

LN: So you are logged in while you make phone calls.

AL88: It is a web site. And I think it has like five or ten minutes...

GV: Then it is automatically logged out.

AL89: Yes, after some minutes if you are not active.

LN: Any other things then security, you think of? That seems to be a major one.

AL90: Yes.

LN: Any other you can think of?

AL91: For the company, no. I cannot really think about it.

LN: Is it difficult to learn or?

AL92: No, I would say it is really easy. But I think it will also put higher pressure on the employees, because they give you a phone and say 'hi, now you have a phone'. But they also want you to use it. And if you have all this information. The company want you, they give you the tools to help your customers, but it is also...

LN: You need to utilize it a correct way to benefit all this.

AL93: Yes.

LN: Do you sell that as well, saying 'well if you do like this you could benefit more' or 'have you thought of this way of using it'. Are you aware of how the customers use it? If they use 50 percent or 10 percent of the modules they have. Do you sell that package, the knowledge package or how to use package, or is that expected for them to know?

GV: Training.

LN: Training is the basic form.

AL94: The usual process, the customers we are working close with. They could say out of the blue that 'you know I was sitting at some airport and it would be really good if I had this kind of information, it was difficult to go in to a web café and Virtual Private Network (VPN) connection and so on.' OK, but do you know you can actually access it from your phone. So and then we usually know what kind of data they want to see depending on if it is a project driven company or if it is like a manufacturing company or a trade company. And then we just show them a demo, you can get everything you want.

LN: There are some customers you are account manager for. Can you say this company they utilize this percentage. Do you use this too?

AL95: No it is impossible.

LN: OK. I think you have a potential there. Because our understanding is that even they are trying to get the sales people to use it more. The reasons we have seen is that they themselves see that there is a big potential, but they use some part of it and they rather keep to the old traditional way, because I know how that works, and I do not want to change my habits. Because behavior is very slow to change.

AL96: It is.

LN: Young people maybe change in a quick pace. But changing can be hard. It seems like training is one part we have found. Where is it? Where is the training? And you say. 'Here is the phone use it.'

AL97: No, of course. You have two separate processes.

LN: Yes.

AL98: First we need to sell it for customers to use it.

LN: Yes.

AL99: We do not give anything for free. There is no free lunch.

LN: No.

AL100: When they actually have bought for example a phone edition, then they will get obviously education, like everyone who will use it. But sometimes it is an ad hoc process. I think it is interesting what you say because it is hard to change a mind set. We have always worked like this. And maybe someone comes and says you should work in a different way. No it is difficult and so on.

LN: Even if there is training available, they have to apply for it and they have to accept it as well.

AL101: Yes.

LN: Both parties need to ...

AL102: Yes.

LN: Let us change. How do think it is influencing the work of the people you sell to? Will they come back and say it is much better now I save time or? How does it influence the work? We understand it is access to information. You have good access to information. You do not need call anyone. You have it in your hand.

AL103: We recently did a work for a trade company.

LN: Yes.

AL104: They are really dependant of working with some electrical stuff for the US market, and it is not bolts. It is special things. If some things break for heavy industries. It does not matter if this little tiny thing cost ten thousands SEK to ship because it is much more expensive to have a whole factory standing still, if you know what I mean, so therefore, that is there business. So they have began to use it, because there sales representatives are always out, very seldom at the office, so they know when the customer calls, because they call them a lot and ask where is my stuff, where is my stuff. Before they, I should call back, and they call you after office hours and but they could not answer. But if you like your job, I answer the call if the customer calls me at 7 pm, because it does not happen every day. So now anyway they have this tool and they can answer the customer because they register it in the ERP system, where the deliveries are. They can say 'it is delayed' or 'it is on time'. So they are really happy now. They actually changed their whole ERP system. Now they have Pyramid and they are quite happy with being able to say that to the customer in real time, 'OK it is good', and the customer 'OK it is good'.

GV: What other applications currently are provided by Pyramid for specialize as a part of mobile CRM?

AL105: What did you say?

GV: Except mobile office, what other modules or solutions that is provided by Pyramid, specially for the mobile CRM?

AL106: Do you mean in general or only mobile CRM?

GV: Only for mobile CRM.

AL107: OK so you have, as I said before, you have mobile CRM for the phone that is like one module and you have for the web, that is one module and you have for the client based access that is the third module, and you can say registering orders is one and the iPhone.

LN: Can we use your name?

AL108: Yes, of course.

LN: Have we talked about the quality? The information quality, system quality and service quality. I think we mentioned it, that it is the same server. You said the quality is improved because you can bring the actual information to they customer. You do not need to call someone.

GV: Yes. But I would say even if that is good, you bring down the transaction cost that you can see on the bottom line.

LN: And when you say transaction cost, what is the main part of that? Can you elaborate on that?

AL109: It is really simple. If you have your sales force.

LN: Yes.

AL110: going around and they are making many business trips, and they are out showing customers and it is really common that they have like a route they go to and at the end of the day perhaps or maybe in the end of the week, they will fill in the orders. Then they will process it somewhere else. But if they could do that when they are out to the customer, use the phone, do you want this? Obviously not for complex sales, but maybe when you are working in a store and selling sun glasses or whatever. But even then you can do it real time.

LN: You will cut time?

AL111: Yes you will cut time. You will have it faster in the system. The customer will have it faster.

LN: And be invoiced faster?

AL112: Exactly. So you will have a better cash flow. And my thesis is that this will lower the transaction costs for a company. I think it is mainly because you will have faster shipment to the customer and also because you will, if you do it, you show it to the customer, and they say that is correct, then the probability of typing it wrong, you will minimize that, because even I have a hard time to read what I have written. You look at you notes now. And if you look at the notes perhaps three or four days later. Is that an R or what, and then you will have errors. It will take time to reduce that. And that I think is pretty fascinating. That has helped our customers, because they told us so.

LN: I do not think I have any more questions. We have got many answers, so I am pleased. Thank you.

GV: Thank you.

AL113: Thank you. But as well as Johan, if it is possible, it is not mandatory, but if you could send me what you have written?

LN: We will.

GV: Of course we will.

A3.3 Miljöcenter

Company: Miljöcenter

Role: IT Manager

Person: Tomaz Lundstedt

Date: 2011-05-02

Gargi Varu: So here our thesis is on mobile Customer Relationship Management. We would like to know how the concept has created net benefits to the customers in any of the fields like manufacturer, production or anything, any of the fields. How the customers feels about the mobile CRM. What is the meaning of mCRM by them? As now the usage of mobile phones is increasing and also the organizations are started to mobilize, mobile initiatives. So we would like to know, where the mobile CRM fits. How it is suited to, how its usage is beneficial to the customers or not. Whatever is said in the market by suppliers and suppliers of the mobile CRM. Either it is a hype or not. Actually customers are feeling the same net benefits that are stated by the suppliers of mobile CRM. So some of the questions are based on this.

Tomaz Lundstedt0: OK.

Leif Nordstrand: What is your role/background?

TL1: My name is Tomaz Lundstedt and I work as an IT manager here and I also have the responsibility for communications and advertisings and I am a photographer also. So I am not working here fulltime. So I mix these two jobs. I am running my own company and I have these responsibilities here. So I am trying get the relevant software and try to have everything up and running, servers and computers, the mobile phones and what you need to work.

LN: And as we understand it you are a user of Pyramid?

TL2: Yes.

LN: And we got an explanation of Pyramid as it was a complete ERP system with about 50 modules, and CRM is one of them

TL3: Yes.

LN: and mobile CRM and mobile phone edition, mobile office is a part of that.

TL4: Yes. We have mobile office and we have also mobile phone edition and mobile web edition

LN: OK.

TL5: And we are trying to get the mobile iPhone app. to work. It is not that easy. But I hope we will make it in a few weeks.

GV: As coming from your history background that, here you have started in 2008. Everything is going to be computerized logistics areas. So you can say first you implemented in 2008, everything is going to be computerized. Communication with the edi and everything, so what are the problems you are facing before it and after computerizing all the logistic areas, implement ERP or mobile CRM. If you can give a brief explanation?

TL6: Yes, we bought another company and they have three salesmen in the country. So they are never going to work from our office. So that was the start for mobile office. So I have that company with the name Green Line and this company Miljöcenter. And they have three salesmen and we have two. So they are out the whole week and traveling around the country. And instead of giving the new sales men the whole, a full license of Pyramid, it was a new way to make it a little bit cheaper and more flexible, because the mobile office license is not that expensive as a full version of the software. And the mobile office it is more simple. When you login to the software you have - Have you seen it?

LN: Yes.

GV: Yes we have a look at some of the applications in mobile office.

TL7: And then you know, you just have the functions that are interesting for a sales man. So I think it was a good way to start working in Pyramid for these people because they do not need all the functions in Pyramid. So we tried that and I hope that they in the future also will use the statistics, so they can tell the customer that last year you bought this and this. And now you have so many in your store and I hope you will order this from me now because we can look back all the time.

GV: So at present the salesperson is not getting the statistics on their phone. The synchronization with the main system?

TL8: Yes.

GV: They are not getting the real time data at the customer premises?

TL9: No, you can run it in two ways. In off-line mode. When you are connected to our server the last time. So that is the newest information. And if you run it off-line and does something in the system, so the next time you connect with us, it will send the change to our server. And our server will save our changes back to mobile office. But we are not working with mobile office in that way, because everyone has mobile Internet connection in their computers, so there is no reason to use it off-line. And we have very big problem to use is off-line. So because we have very big mistake done in the system, because if you were logged in off-line. One of our guys was logging in off-line. And he was doing a lot of updates and the he goes on-line and nobody could see the changes. Because if you have done that off-line. It will never send it to the on-line server. So that is a bug in, I think a bug in the software. So therefore I said no one is allowed to use the off-line mode, because you have no dialogue that tells you that, if you are going to change anything now it is not going to be updated to the full version. It is a terrible mistake, I think. So they are using it on-line, via Internet.

GV: So after going to mobile, does your salesperson feel it productive for them? What is your opinion of the sales person?

TL10: Yes, because they do not have any before, and now they can use it in their computer, so they can put their own orders to the system. So now we have been running since January or something, so now it is high season, since it is spring and we sell garden products. I think we have to teach them from now on and over. They can place an order and that is it. So we have to teach them. If they place an order and we do not have it in stock. So when can it come in and how many are in pre-order from our factory. That is something we are going to work on from, I think, during the summer.

GV: So it is an ongoing process.

TL11: Yes, very much, very, very much. So they came from nothing, because they left the pick up the phone and call a lady who took the order and typed it in the system. But now they can place their own order and they have order acknowledgement. So they can send it to the customer as a pdf file.

LN: When you buy a system like this, they offer training as well, Pyramid? They say this is the training we recommend or?

TL12: No, because it is very special with Unikum, because they have reseller

LN: OK.

TL13: And our reseller he has not worked with mobile office. So I had no information. I had nothing. So I had to call Unikum to ask. Can we do this? Can we do this? So it has been a really tough start.

LN: Who is your reseller?

TL14: Iternity.

LN: Because there is Cygrids as well, which is the biggest here in Malmö.

TL15: Yes, I had Cygrids here also, but we have to change reseller to from Iternity to Cygrids. We cannot have both.

LN: OK.

TL16: I think it is.

LN: Do you have Cygrids from now on?

TL17: No, we did not change.

LN: OK.

GV: As you said that you are facing a bug, one of the problems, while working off-line. So any other problems you have been facing in the system?

TL18: Yes.

GV: What is your opinion about the quality of the system?

TL19: I think this system is too old. I think it was a good system before everyone was on-line all the time.

Because then you can work off-line all the time. Then you can connect in the evening or they also have an email sync. Because you send me some text information by mail, and then it was updated. So I think, for a couple of years ago, this system was good. But now expect very much more from it. So we have a very big problem as well, because you have the calendar in mobile office, there you can book your visits, then you can connect your visits to your contact person or the customer, but you need to sync it down to the phone and you cannot do that if you use it on-line. So it is very, very strange. So I think it is a big problem

GV: According to it, when you are working from the PC or in off-line mode it is OK, but it is when it is going to on-line it is not working, or going to mobile it is not working?

TL20: No the problem with the calendar is that mobile office or Pyramid, they do not synchronize anything, but they synchronize outlook and then outlook synchronize the phone. So it has to take the way into outlook and then outlook to the phone. So that is the problem, because three of our users they are never in our network, internal network, and you can just sync the calendar from mobile office to outlook if you are in the network. Not if you are on-line using Internet. So you have three different connection types. You have off-line. You have on-line Internet and on-line local area network. So that is three different things and do not work exactly the same.

GV: According to it, mobilization, what they mean with mobilization, is not actually in the practical?

TL21: No I do not think so, because you are using your phone. They have iPhones everyone, because you have also an app, but if cannot sync your calendar to your cell phone, it is worthless I guess.

GV: It is worthless.

TL22: Yes.

GV: Then it is the same like as traditional packed CRM software or something like that.

TL23: Yes, so the only way to look in mobile office calendar is to use the mobile office web page or the iPhone app. You can also see the calendar. But you do not want separate calendars. You want one. So you need to sync. So when the sales man come to the office every day, then it can work, but not mobile.

GV: It is not mobile.

LN: Have you passed this information back to the reseller?

TL24: Yes.

LN: And they confirm this. We know this problem and, or what do they say? It seems like a quite obvious serious problem.

TL25: Yes, it is one step more complicated, because the other company is running Microsoft on-line, so they have their exchange in the cloud, not on any server.

LN: OK.

TL26: So it is complicated just a little bit. But they are talking about some time in the future you can use Google calendar or something like that. And if you can do the connection to Google, you can do the connection to Microsoft. So you can take it from two or three steps to download it in your mobile. So it is not optimized, I guess. So that is the problem.

LN: When we were visiting Unikum the other day, he mentioned the calendar, as a strong...

TL27: Yes.

LN: strong connection point for everything like working. So it seems not like the heart, but one of the main functions.

TL28: Yes, and it is a very good idea, because everyone can look, go to the contacts, take up a contact and you have a visit three days ago or you sent me an email regarding this product or whatever. It is a good idea, but it is not working and it is very important for a sales man, because they are looking in their calendar all day, all the week is booked and they have to travel all around the country. So it is very important for them.

LN: The users you have, these sales people, are they satisfied with this?

TL29: We have two companies. The Green Line company did not have any software from beginning so they are satisfied so far, because now they can place an order...

LN: OK.

TL30: and send it to us...

LN: OK.

TL31: on-line direct.

LN: OK.

TL32: So they are satisfied with that function, but I think it is just 10 percent of mobile office, because you can do so much more. And our sales men in Miljöcenter they have the full version of Pyramid and they are not satisfied, because we had a little hook to one of our customers. So we are sending the order by EDI. So it had to confirm the order. And you cannot confirm that way in mobile office. So this EDI connection is running outside the mobile office. So they cannot use at all right now. So I hope we can find a solution after the summer.

LN: OK. So do you have any thoughts about mobile CRM from this?

TL33: Yes I think it is a very good idea. But I think it is, yes we are talking about Unikum, of course because we using that software. The thing with the phones is that you so used to use apps. And in their app you can only watch things, you cannot put in things.

LN: OK. You can watch things from the Internet.

TL34: I think I have.

LN: That is the way we understood it from the other day. When we visited them, they said from Internet you can. If you get Internet access, a web page access, through the phone, we thought that was, I thought that was the same kind of ..., you could enter things, change things.

TL35: Maybe I am wrong, but I think it is a...

LN: I could also be wrong.

TL36: I do not know, but the app is that way, because the app is free.

LN: OK.

TL37: So I think that if you buy mobile office, you can place orders, but you cannot place orders in the free app. Because you do not want to buy mobile office if you can place an order in the free app. So I would have preferred an app or a web interface my sales men can place an order in. Maybe I am wrong with this web. I do not know if I have it in here. Just a moment...

Tomaz Lundstedt fetches a mobile device with Pyramid software installed.

TL38: Too small to you. I think. Have you seen it?

LN: Not on a mobile phone, just on a PC.

TL39: So, this is the calendar. And you have your order here. So much information you have to put in, to watch anything.

LN: As I understand it. You have a system since 2008 and you would like to use the system more than you do. But partly used, like 10 percent on the mobile office. It seems like you have system that you do not fully use and the things you try to they do not fully work, as you would like them to work.

TL40: Not in the mobile office no.

GV: You started from 2008. From 2008 you also implemented mobile CRM in your organization or the mobile initiative after 2008.

TL41: Yes, the mobile office we implemented in December 2010.

LN: The main access point. They have laptops the sellers.

TL42: Yes.

LN: They also have iPhones?

TL43: Yes.

LN: Have you asked them? Maybe they give you feedback anyway. Saying this does not work. But it seems to be threshold they have to pass.

TL44: Yes, one of our sales men is trying this. Is it the thing we have with the customer. We have to resend the order as a confirmation. So if he cannot do that, he cannot use the system. So he just said I am not using it anymore. I am going back to the old, to the full Pyramid license. We have to deal with that later. Yes, I do not know if I am right. But if you are watching an order here. You can see the order but you cannot place orders. So it is just plain information. So I do not know. It can just give the information. I think, if you can place an order in the iPhone. I should be very nice, because then it is really a mobile office.

GV: At present you told me if you are able to order on-line, then it is very beneficial to you and very mobile to you. Which other such areas do you expect?

TL45: They can control if our product is in stock or not. So that is a very good thing to know. And yes, they can now watch if the order is sent or not. Also very important information, because sometimes customer calls and ask, it has not arrived or something. Then you can go in and check. Yes, but we sent the order yesterday. Yes, order information. So it is a wish, if you can connect your mobile office or this kind of system to example to DHL. And then you can check the order and the freight. And you can see when it is leaving our warehouse and now it is under way to be transported out to you.

GV: You mean an addressing system?

TL46: Yes, because the post and DHL they have this kind of system. You can track your order. But can you connect your system to their system, it should be very nice.

LN: So as it is today when a company purchase or make an order from you, you do not where it is. If they call you and say where is it now? We have not got it?

TL47: Yes, we can check.

LN: You can check.

TL48: Yes, but we have to check at DHL homepage.

LN: OK.

TL49: So you cannot inside our own system.

LN: OK.

TL50: So you have to check...

LN: what DHL says.

TL51: Yes.

LN: OK.

TL52: And it is also very important if you buy this software that you have a plan for education and training, because you cannot just install the software and give the computer to the salesman and say: 'Here use it.' Because there is so much good information. They have to know what to look, where to look and why to look. Because you can always just place orders, but you can use statistics and I think it is a good argumentation, to the customer.

LN: When you say this to the resellers, what do they say, because it is very obvious to me. They should also experience it every time they are sell it that the customer could possibly need training.

TL53: Yes, yes.

LN: And it is an opportunity for them to maybe sell. It is so obvious to me so I do not understand why there are not solutions already available.

TL54: No, because the way that Unikum is working with their resellers and our reseller is a small reseller and he is not working with mobile office. So he cannot educate them.

LN: OK. So when you contact Unikum, what do they say? They just say sorry, we cannot provide it or?

TL55: No.

LN: Do they give another contact? Contact him and you can get it or?

TL56: Yes. Maybe you can change the reseller. But we have the same reseller since 2008. We will not change because he has done so many things custom. What to say, customized our system,

LN: OK.

TL57: So we cannot throw him out and take in another one, because that cost us much money.

LN: OK.

TL58: So, and they do not have any. They do not. They say, that is not our problem.

LN: OK.

TL59: We are just selling the system.

LN: OK.

TL60: We are not doing anything more.

LN: OK.

TL61: They think it is their reseller's responsibility to solve that problem.

LN: OK.

TL62: I am not satisfied with that.

LN: I understand that. I would not either.

TL63: Because it is not just to install the software on the computer. You have to set up an Internet server as well. So you have to connect your main to the Internet server, the mobile office to the Internet server and that is why you have this web edition and phone edition, because it is just there, because it is a web server, so you can access it. But the main thing is the mobile office to the Internet server to a web server. So I ask 'who can do that?' and how long should I calculate it will take to install? We do not know. We cannot recommend anyone, because we have our resellers. Yes and I said 'who can do it?'. We do not know. You have to call them and ask. So it is very difficult to get a clear picture from the very beginning and say 'OK this will take eight hours or a week to install and get the things up and running. So it has been a trip.

GV: So during customization this problem you have faced right. So does impact on your choice to mobilize or to implement infrastructure for mobile in your organization.

TL64: Yes.

GV: What do you feel about this? Because as I get from you. You are not satisfied with this mobile CRM application that is provided to you. It is all about your money even after all.

TL65: Yes.

GV: So what would you like to enhance your mobile infrastructure or you just want to, if such going on then, you just want to do in traditional way that you are doing with.

TL66: Yes, I think it is, I am very interested in technology and... So I think it is... There is only one way and that is, I think it is on the web and it is on-line. Maybe it is in the cloud because you are used to have all your information you want everywhere and you want to access the system from everywhere. Because you can use your bank accounts in the phone. You can check how many bottles of red wine you have at Systembolaget on-line on the phone. So I think it is very natural to access things like that, in that way. So not to do it, I think it is old and we need to do it because we need the information correct and fast.

GV: OK. Are there any impacts on the quality after using mobile, means like, now you have just started...

TL67: Yes.

GV: to place order line through mobile application.

TL68: Yes.

GV: Does it make any big impact on the quality of the information, positive or negative?

TL69: Yes, everything is positive, because the sales man who just send an email or called and told the woman to place the order, they can now check if we can deliver and they now see the prices. Because if you put the product in the order, the price is coming up. So if they are not using an ordinary price. It is up to them to adjust the price in an order and somebody else had to take care of that before and now it is in their knee, so they have to have the prices in their head. Now they have to make a better way to work. Because it is not the best way to work and say you can have 10 percent discount, then you can have a, find a... Because it is a mess. And now they can see it by themselves, when they are placing an order. So I think it is very good for them. Because they have to take the responsibility for the order when they place it all the time. So I think they are thinking in a different way.

LN: It seems like mobile CRM gives some positive...

TL70: Yes.

LN: Information flows.

TL71: I have another wish is to use bar codes or QR codes or something, so you can place order in the system with just your phone. We are now introducing QR codes on our shelves, so you can know what it is, the QR code?

LN: Is it like the lines where you have...

TL72: No it is the bar code.

LN: OK, so it is the picture.

TL73: Yes, the square.

LN: Ok, I have seen it, yes.

TL74: Yes.

LN: What it is called?

TL75: QR. Quick response.

LN: Quick response.

TL76: Yes, quick response.

LN: I have seen, but I have never used myself.

TL77: So I think. You must connect these things on the bar code to the mobile office as well. Because if I am a sales man and I am in the store and they ask me can you please fill up our store with your product? OK I can do that. I take this. Ten of this. And the next one. Shoot it. And you are not going to type anything in because it is too slow. You have the information on the product and you have the information on the box, because you place ten pieces in a box and outside that box you have another bar code that tells the system that ten pieces is in it. So you can just shoot anything.

LN: And you do it with the camera?

TL78: Yes.

LN: Yes, and Pyramid says please type it in.

TL79: Yes.

LN: OK. I understand.

TL80: So some connection between these should be very nice.

LN: So it is probably in their roadmap for the future?

TL81: Yes I hope so. I think we can start tomorrow using it.

LN: And it will save time.

TL82: Yes.

GV: When you customize your mobile CRM with your existing system, any of the major problems you have faced?

TL83: No.

GV: It is easily customized with the existing system?

TL84: Yes, that was easy, because when you are connected first time, you are downloading a copy of the information down to your computer, so you can use the off-line version. So that was never a problem.

GV: Have you upgraded your application or anything related and you face something and something goes wrong. Means there are versions. Up to fixed intervals suppliers release there new versions. So you need to upgrade your system. During such type of up gradation, did you find any type of difficulties?

TL85: Yes, that is a problem. Because, well I think this is an old way to do it. To install software in a computer. I think it is the wrong way to do it, because you can use it from the web. I think that is a better way to do it. You can login, using it from any computer. And then you do not have to upgrade the software locally, because I have one in Jönköping, one in Örebro and one in Gothenburg. So the only way I can access there computers, it is when they are using a connection for several hours, so I can log on to their computer and they have to install the upgrades. And maybe they cannot use the computer, during the upgrade. So a web version is much better. Because then we can handle everything from here. And when they logon it is the latest version every time.

LN: And Pyramid does not have a solution like that?

TL86: No, I have heard something, like the cloud in the future.

LN: But not now.

TL87: No, not that I know. I do not know. I have not heard about, so I think they are still using traditional software for a couple of years.

GV: Anything you would like to share that is not covered by our questions or something?

TL88: No. I had a bug in mobile office, from December, I think, to March. More or less. I was on vacation five weeks, so we paused during that time but we had a bug for two months. And I said to them, you are looking at the same place. Because they were down in Windows in the register and they... I had to read files and make very strange things. And I said that is not the problem, I think it is an easy solution, but you can just not see it. So when we solved the problem, it took four or five seconds, because it was just a little plug-in. And that was not on our server. But it was on the local computer, so every time you are trying to book a new meeting in the calendar, the program just crashed. And the message said something about, I do not know, I could not understand that. But the thing was, the calendar or the mobile office was looking in the local computer for plug-in and then it was looking at the server for the same plug-in. So all the time they were looking, Unikum, their support team was looking for that plug-in on the local computer, not on the server. So that is the problem. So for two months, we were hunting this plug-in in the local computer. And when I installed it on the server, 4 to 5 seconds, it just worked fine. So that is also some problem.

LN: It is like a child problem.

TL89: I think they should know about these bugs, and say you have to have it both the server and the local computer. And if you ask them, they are going to say something else, I guess.

LN: Yes.

TL90: Because they think it is my problem.

LN: We will probably bring that up.

TL91: No.

GV: At present, in mobile office, you have applications like calendar, meetings, orders.

TL92: Yes.

GV: Means, which other types of applications you have.

TL93: You have customers and contacts and statistics. So because they are, I do not know, another system, but in Pyramid you have customers and on that company you have contacts. So contact is a person and the other one is the company. And you can have many contacts on one company. So that is two different things.

GV: Yes.

TL94: So, I think it is that.

GV: Any other application than mobile office that is provided by Unikum?

TL95: No.

GV: At present Pyramid have only mobile office?

TL96: Yes, I think so.

GV: As mobile application?

TL97: Yes, they do not have any other solution. I think maybe they have something. I heard something about the web, but I have never watched it. So I do not know.

GV: Yes.

TL98: And I had Cygrids here to show me the mobile office and I think they have the knowledge about the system, maybe.

GV: Yes.

TL99: It is always special when you come to these bugs or maybe you come to this we need to confirm order, because our customer needs that. So how can we take these special things from Pyramid and put into mobile office. Can we do it? I do not know. I have to check that out in the summer. So if cannot solve that, then we cannot use mobile office in this company. And I think it is a very dangerous way to go, that I told you, if you are changing things in off-line mode you can never synchronize that.

GV: In on-line.

TL100: In the on-line mode. And you have no dialogue box that tells you, ops you cannot change this information, so I think that is a very... Yes it is dangerous. Because I had one of our sales men. He changed I think 200 customers and you cannot list the information.

GV: So it is a waste of time as well as effort.

TL101: Yes, I called their support team and after many hours in phone, we could pick the things out and put it in the main system. So I guess we had most the information that failed. But after that it is forbidden to work off-line.

LN: But they said, yes we know, that is the way it works.

TL102: No. Yes.

LN: The problem you have found, they said we know about that problem.

TL103: But they do not think it is a problem.

LN: They just say, that is the way it works.

TL104: Yes. So I can have a sales man working in off-line mode for a year. And he can have done very many changes in the system, and we do not know he had done anything, because we cannot see it. And he does not know it is not going to synchronize with us. So then we have two worlds. We have two, two...

LN: A virtual reality.

TL105: Yes. And then he can look in his system and maybe he can run something with statistics and say look here. This is my reality. And we have this information. So I am...

GV: It is dangerous.

TL106: It is very dangerous. So I am very glad we could solve this with just 200 cut away and not a year of work in parallel systems. So I think they should, yes, if you cannot synchronize the information you should not change the information. The button should be gray or something. The off-line mode is an old thought, I think now.

LN: Can we refer to you in our thesis.

TL107: Yes.

LN: OK.

TL108: I think Unikum they know what I am thinking about their system, so it is nothing new.

LN: We will write down the whole interview and send it to you as well.

LN: Except from these, you mention DHL and taking this quick response, what other things, you say, would be main steps for them to take or what would be things you would click off next time you look for a new system? DHL and quick response are maybe the only ones?

TL109: Yes, I think if you should put everything in the system that our sales men work with.

LN: Yes.

TL110: I think a big issue for them is to plan the route.

LN: OK.

TL111: Because they are planning the route and then they take car and drive around the whole country. So if you can just put in...

LN: Shortest distance?

TL112: Yes, something like navigation thing, but you should... if you can go to the customer in the system and say this week I will visit this, this, this and this.

LN: OK.

TL113: And then you can have a route out of the system. OK, start with this and then go to that one and that one and last that one.

LN: OK.

TL114: I think that should be very good function. Because now they have to calculate in their head. OK, if I go can to this, then I have three hours to that and no, I can take this one in between and so on. So that takes much time for them to plan their weeks.

LN: OK.

TL115: So if you can do that you can always set a parameter to every customer and say OK, visit this customer every 6 months and then you can have a list for who you should visit the next three weeks. And then you have the system to give you a suggestion for which customer you should visit.

LN: OK. In understand. I could be a smart traveling plan.

TL116: Yes.

LN: Based on the customer base and the frequency you visit them.

TL117: Yes.

LN: And now it is like within these three weeks you should visit, then you could see... put them together in a nice...

TL118: Yes.

LN: I understand, that would be clever. A sales feature.

TL119: Yes. You can start a company. Because you can do it. It is not the future. You have all the information. So if you just put the system connecting to Google maps or something and then you can do it. Because in our web platform you just put in street address and then you have a little spot on Google maps. So it is possible to do.

LN: Maybe we should say thank you for... Do you have more questions?

GV: No.

LN: Thank you.

TL120: Thank you.

GV: Thank you.

A3.4 Happy Accessories

Company: Happy Accessories

Role: Managing Director

Person: Mikael Drennow

Date: 2011-05-12

Mikael Drennow0: We can take this in Swedish or in English.

Gargi Varu: In English please.

MD1: You prefer English.

GV: If it is OK?

MD2: English is absolutely no problem. But you are from?

GV: I am from India.

MD3: Where in India?

GV: Mumbai.

MD4: Mumbai, yes. I have never been to India. But we have suppliers outside Mumbai. I have met a lot of Indians. I used to live in Singapore. There is a lot of Indians living in Singapore also. Good business men. I know it is... When it comes to business in Asia, I mean the Indians and the Chinese are leading.

GV: Yes.

MD5: Front runners definitely. Have you been to Asia?

Leif Nordstrand: Yes, I lived in Japan for three and a half years. But I have never been to India. I have been to China. But it was many years ago.

MD6: Japan also of course.

LN: It is a very developed country. It is more developed than Sweden.

MD7: Yes.

LN: More like a future of the world.

MD8: If you take Taiwan, I mean the Chinese are still running the business. So it is...

GV: India is a developing country and it is one of the countries that can supply for itself and also produce for itself.

MD9: And very good educational also.

GV: Yes of course.

MD10: But is very well known for that, I mean you have really developed a good educational system. And that is something to be proud of, I think.

GV: Means like, if you look at the history, the first world university is build i India.

MD11: Yes.

GV: So it is the oldest international university.

MD12: OK, it is nice.

LN: OK. Maybe we should come back to what we are going to talk about. Because your time is running out, so.

MD13: Yes.

LN: We are students, and we are studying a Master of Science in Information Systems, and our master thesis topic is mobile CRM.

MD14: Yes.

LN: And we have talked to Unikum about Pyramid. Unikum and Pyramid have been our choice for...

MD15: How did you get in contact with them?

LN: We called different suppliers, as SalesForce and different companies, and Unikum replied back and said we can. Because we are students, we can only ask for time. We cannot buy their time, so to say.

MD16: No.

LN: Unikum were friendly enough to say yes.

MD17: Who were you in contact with at Unikum?

LN: Johan Svensson.

MD18: Johan Svensson.

LN: And then we have talked to Cygrids, and we have talked to Miljöcenter. It is a customer. We are trying to get both suppliers and customers, because they are the users.

MD19: Yes.

LN: Se we see you as an user of mobile CRM. And we got your name from Andreas Lindqvist. I am trying just to rap up everything. Maybe we can start.

MD20: Yes.

LN: Mobile CRM, we can start there. Was it to you?

GV: What do you mean with mobile CRM? Was it in your view? What is the mobile CRM?

MD21: That you have access to your data base. That you have everything. Are you talking about the version I have in my mobile phone? Or are you talking about... Because I mean you have mobile you can... Because we work in different ways here.

LN: OK.

MD22: One I have installed here on my mobile phone. If go with my iPad I connect with terminal server and I actually work with the whole Pyramid system there as if I was sitting at a work station. And I was actually talking to Unikum, because they are planning to develop also to make it available on the Internet, so that you can actually login and go in on a web site. You can login to Pyramid and make it more accessible that way and easier. And today you cannot really put in orders via that mobile connection.

LN: Sorry, via the iPad or via the phone?

MD23: I use both.

LN: Where can you not put in orders?

MD24: I can put in orders via my iPad, but then I have to connect via terminal server.

LN: OK, but not through the Internet.

MD25: Not through the Internet, yes of course it is... terminal server is through the Internet in a way, I mean I have to connect with the VPN-server (Virtual Private Network), and then I have to connect to the terminal server.

LN: OK.

MD26: Have you seen that solution?

GV: No.

LN: No.

MD27: Do I, no I do not have my iPad with me today.

LN: OK.

MD28: But then I can work via my iPad. I can work via my laptop also.

LN: OK.

MD29: So that is the mobile connection when I am out working on the field I use that very much and I use that when I input orders. We have sales people down in Germany. They input orders there.

LN: OK.

MD30: The Norwegians input orders there. Finland input orders there. So I mean other countries they connect to our server, they input the orders and then the orders go directly to our factory in the Philippines, who also work via terminal server actually, sitting directly connected to our database. We have a VPN tunnel connected from the factory to Sweden. So when the German sales guy, he inputs the order, the picking list will be printed in the Philippines.

LN: OK, very good.

MD31: Apparently I mean, because I had one of the owners of Unikum over here and he said we use Pyramid in a very extensive way, or what did he say, I use a lot of it and I use it much more than many of their clients also, apparently. I do not know but for me it is important to be mobile. It is important to be connected and that everybody has access to the data. Because that is our life and we have to be fast.

LN: So mobile CRM gives many net benefits for you?

MD32: Yes.

LN: You can do many things, it seems?

MD33: Yes, but if you go in to... This is just how we work. But if you talk about the Customer Relationship Management.

LN: Yes.

MD34: There we are working with that I every time when I am in contact with a client, I send an email for example. I connect it so it is immediately connected to our database. That I do in the office. I do it when I am out in the field, via terminal server. I cannot do that via my mobile phone.

LN: OK.

MD35: Because everything is not in the mobile phone. It is a downsized version of the full Pyramid, so for me... And I have told Unikum, you should have today a solution and especially when you work via iPad. A solution where you have access to everything that you can work full out with the email and attachments and these things. But we are... one step at a time.

LN: Yes.

MD36: It is a lot happening, and I think the iPad has opened many new doors. And that is where we have a future in mobile... Because for me, there is no reason for me to even have an order block. Today you right on papers. But I just have my iPad and I have a scanner and I scan the articles what I am selling to the client and it goes in and when I am leaving the client he has an email in his inbox with the order.

LN: That is how you use it today?

MD37: No, we cannot do that. That is what I say; you should have that interface in the iPad. So you have an easy interface, because terminal server you can work with but it is a little bit... It is not easy enough. When you work like that it should be extremely easy.

LN: The PDAs they have today for warehouses. Is that something you can use in a similar way, a scanner? Or is this slightly different to what you talk about?

MD38: Yes, if we are looking at the PDA they are scanning. But that is for doing an inventory. That is for out delivery.

LN: Yes.

MD39: They should have it for making orders also.

LN: OK, and they do not.

MD40: No, and it should be connected to the iPad, because I mean, the iPad or Samsung has a similar one. But I mean, if I am out working as a salesman. I mean, today I do not really need my laptop anymore.

GV: So you prefer mobile phones and iPads more than laptop?

MD41: No, something, I mean, the laptop is needed for but when I am out visiting a client, I definitely prefer my iPad. Because if I am sitting... Usually I am coming in... It is tight space and I mean if I take up a laptop, I have the screen in front of me like that and I lose the contact with the client. But and iPad I mean it is like your note book and I just tap on it and it is very... And I can interact more, move it easier. A laptop you have to lift and turn. The iPad, you sit like this, and you turn it like that, and it swaps the picture immediately and then they have access to it, so it is... I mean it is brilliant. It is brilliant and I mean it is email and everything. I think we will see more of that. I mean all the PC, I think HP, and Samsung already has one which is very competent I know and there will come more...

LN: So it gives you as I just said a lot of net benefits to you, and there will be more net benefits further on as they develop it.

MD42: Definitely.

LN: It seems like it affects your work quite a bit.

MD43: It makes work easier.

LN: Yes.

MD44: It makes work easier. For me, if I go in on my iPhone and I have all the statistics for example. So when I talk to... before I make a phone call to Germany, I can... I am sitting on the road from Lund to Stockholm for example, and I check and I see OK now the sales is like that, so when I call, I say: -Yes OK, so how is it? I have seen you have had good sales lately or I can say that I can see that it has been standing a little bit still, is it something what I could help with? So it is a support tool for me. I have easy access to my data, in a very good way.

LN: And that you have in the phone too as I understand it.

MD45: Oh, yes. You have not seen it.

LN: Yes we have seen some, but the explanation we have got so far is that the phone is more like a viewer, and the laptop is more like if you want to input things.

MD46: Yes, and that is what the others have said also.

LN: Yes.

MD47: Yes, and that is what I am saying also.

LN: Yes, you are saying the same.

MD48: Yes, I am saying the same.

LN: And others have said that they would like the phone to be... They have mentioned that there could be QR, quick response scanner. The dots, you take a photograph of it.

MD49: Yes.

LN: And they could use the camera instead.

MD50: Yes.

LN: That is something others have mentioned. So all users have ideas of enhancing. And I see the same here. You mention exactly the same thing.

MD51: Yes, absolutely. That is the way to go.

LN: When you mention that to Unikum, they say that is the path we are taking as well or they say maybe next year or two years from now or? How is the response there?

MD52: There I think actually now you should be fast, because I mean it actually takes too much time.

LN: Yes.

MD53: It takes too much time, and the demand is really there now. Because I see... I think Unikum could sometimes be better in catching up what is happening.

LN: Yes.

MD54: And I think they could have better contact with the clients. Because I know one of the owners, who have been talking to me. He was here and said: - 'Mikael can our people come and interview you, because you use the CRM system more than anyone else that I have seen' and I said: - 'Yes of course'. And nobody was interested in coming.

LN: OK.

MD55: And that is for me very funny. Because for me when I am selling jewelry, I used to work for Electrolux, where I sold vacuum cleaners, and I mean for me there is only one client and that is the end user. And if you lose the focus of the end user. You can have... I have a partner in Germany. But if I do not go to the shops and I talk to the ones standing in the shop and asking: - 'How is it going?, How is it doing? What is happening?' I do not get the true picture.

LN: We agree completely with you.

MD56: And that is exactly how you have to work, I mean, because end of the day, I am the one paying the salaries for the ones at Unikum.

LN: The way we are interested in our thesis, is that in some way it affects your... It does not affect the way you use it, but it affects the way you appreciate it.

MD57: Yes.

LN: It affects you in some way.

MD58: Yes.

LN: If that connection would better, you would be even more satisfied?

MD59: Yes, I know. H&M is one of the most successful companies. I mean, the last quarter they had problems because the cotton price went up, and the salaries and everything, so margins shrink but I know for a fact that everybody, if it is a designer or if it is a... my friend who is a managing director, he is out on the floor in the shops and has to be out on floor in the shops and meet the consumer, every now and then. And I am Unikum's consumer, and I think that should be in their interest. I mean not only the owner. He is a clever visionary, but he has to get it down in to the organization that these tech people are sitting there isolated sometimes. They have to get out and see how our clients use it. Because when I developed... I worked with developing at... I am an engineer myself. I started as a developer at Electrolux and we made ovens. And you know, our people they were... the engineers, we should have this, so you could adjust, this, this and this. So OK, I said fine, then I was out talking to the chefs. And they said: - 'Screw this, I have a manual which is like the bible. I cannot understand it. Make it simple.' That was his only request. So that is interesting. The engineer, he wants to put in everything and he does not think about it is easy to use. But if you talk to the one who is using it. His only interest is make it simple. That was at Electrolux with ovens. And I think, I mean, I have often talk to them and said. When you make something for the CRM, I started very early with it. I said, look at Outlook, everybody is used to use Outlook. Make as similar and as integrated as possible to outlook. And if you can take things from others, do not event the wheel, but just put together a good solution. And it is because it should be easy to get into it and start using it. You should need to have a week of education before you can start to use a system. And I know I have

my wife's colleague. Her sister is working at Unilever. And they have a say: 'Keep it simple stupid.' That is what I think. You should make as easy as possible. And sometimes they miss out of it. And I have learned Pyramid. I have learned to think with Pyramid. But I know for users, like our accountant. I know for Tiffany. It is not easy always.

GV: Yes, I totally agree with you, because I worked as a software engineer.

MD60: Yes.

GV: And we had a pressure, do not think about you are using, think about the people who are using it and consider them the very stupid users.

MD61: Yes.

GV: And develop in that way, our stupid users can use it.

MD62: Yes.

GV: It is always a challenge.

MD63: Yes, that is what I think. I mean today, what are we used to? We are used to Windows. We are used to Outlook. We are used to Word, Excel. And I mean, this is something every user of a computer is used to. So try to study how they have. And now also McIntosh is coming into business also, so maybe that should be something to study also, how are they do things but to think in the logic of other software makers and who are the front runners, because they... in way the set the... this is how... because we get used to think in the way of these programs and that is what I think. If you get as close as possible to the thinking of what they are using then you make it. But it is.

LN: Can you give some examples on how you use mobile CRM? What you do?

GV: Means like which areas of your business mobile CRM covers?

MD64: What I use a lot, I mean as I said here... I use the statistics a lot and I take it up here and I go in and I check the list to see. That is very much what I do frequently. I have also the info studio. I have here articles. I have customers. I have contacts. These are the things which I go in and view. And if I go in on a contact. One thing is that it is slow. Have you heard that from others?

GV: No, you are the first one saying it is a slow system.

LN: Because, that is why they put so limited information in it. Because they want to have it fast.

MD65: You can still see. It is still loading.

LN: But maybe you are using it more than the others. Maybe they are just checking the list and scrolling up and down. Maybe they do not use it. Because they say it only requires 56 kilobit per second connection.

MD66: OK. I have 6 megabit/s here.

LN: But it could be the network as well. Do you have a local area network, WiFi?

MD67: I go via 3G.

LN: 3G OK.

MD68: And here our connection is fiber 100Mbit/s up and down. So there is definitely nothing slowing it down here. It is the same with the e-line they have. It is freaking slow. I mean it is really. I press it and I have to sit and wait for it to come up. And I mean, I do not think that is acceptable today. And I mean limiting information. My question eniro.se or hitta.se?

LN: Yes.

MD69: They have data bases which are much bigger than anyone else. And it goes in a split second.

LN: They are fast.

MD70: They are fast. It is about the technology behind it. So I mean do not give me that. I was actually... But we can go in here for example. We can go in to Åhlens. And I check and here I have contacts. I can...

LN: Can you enter a new order here? What things can you enter here, through the phone?

MD71: This, what I went into now is what I can use off-line also.

LN: OK.

MD72: So here I only have lists. But I can go in also to in here, into the contact central. Now I pressing this one and you can take time how long it takes.

LN: It is still the same minute at least.

MD73: Yes, absolutely. I take a coffee.

LN: This is slower than what we have seen before.

MD74: It is? OK.

LN: Now it changed.

MD75: Now it came, yes. And here I can go in and search for a contact...

LN: Are you happy with the menu size of this screen of the phone. The iPad is ofcourse better. But can you use it? Are you satisfied with it?

MD76: I have no problem to search data.

LN: OK.

MD77: I have no problem.

LN: It does not stop your work.

MD78: No, it does not. I can go back to a menu here. Personal contact central. But there are actually some more things inside the menu that I do not know anyway. So others are faster.

LN: I do not think they are using as much as you do. I think they are just scrolling up and down the list and do not really use it. I think that is the reason. Because we also thought it would be slow, but then they said it is fast.

MD79: You can go in here. Here you have some more information. But you do not have access to all of this information, when you go through the application, which is in the iPad. You have to go into the customer and then you have to go into the menu here. But here you have the centrals. I can get into my calendar, to do, telephone list, work groups, documents, tickers.

LN: And you use this daily as well?

MD80: Sometimes I go into a customer to check what order they have placed and like this. So I can go Åhlens... But I would use much more if it was faster. That is a definite, I mean, it is a little bit too slow.

GV: Any other disadvantages you feel or anything direct experience with this application, because we consider smart phone, iPad as well in mobile CRM?

MD81: Yes. Here you can show orders too.

LN: OK. Some has mentioned that the screen was small.

MD82: Yes, but then buy a bigger phone.

LN: Yes, we get different feedback.

MD83: Yes, I am aware of that. That is what I said. I can use the iPad if I want a bigger screen. To input orders I would not... I would not really sit and input orders on the phone, because the screen is too small. But I do not want a bigger phone in my pocket either. There is also a limit. But to go in and search for contacts and these things I think it is perfect.

LN: As Gargi said, do you see any other disadvantages or bad things with this?

MD84: No, I actually think it is the speed only.

LN: Speed only?

MD85: Yes, the menus can be a little be tricky sometimes to get to. I mean if... that is one thing I can show. I mean here you see the text, is a little bit too small. It is a big chance that you pick something which you are not supposed to.

LN: Yes.

MD86: But that is what I could think about. Maybe more finger friendly.

LN: Yes.

GV: For this you need a very special infrastructure.

MD87: Yes, I think, I mean, instead of having scrolling like this. I mean a little bit like the Android phones. Like I have seen some of the Android phones or like you have here with the icons. You could actually have my tasks, centrals... This information... The main menus as icons. Then you click and you could get the other things as icons also. So it is easy to tap.

LN: My comment would be, they should have a setting icons or list for the user.

MD88: Yes.

LN: Because that is normal in windows.

MD89: Yes if you look here, like pressing one, two, three, four, five... These are easy to press.

LN: Yes.

MD90: But I mean it is... If I am sitting and...

LN: Yes for me it would be quite clever to have this kind of open environment where the most frequent things you do would show up, or you could set your own things you do, in the interface.

MD91: That would be lovely.

LN: I can see many solutions. But this is the system they have. So yes.

MD92: Yes, that is... actually what you say is quite clever thing, because you could here where I have a folder called productivity. I mean, I could have a folder called Pyramid

LN: Yes.

MD93: Then I can press contacts or customers and go in directly.

LN: Yes.

MD94: I do not have to go so many steps.

LN: Can we ask you, the security, because you are using quite a lot. What if I take this or you drop it somewhere. Can I access all the information or is it stopped?

MD95: If you have my pin

LN: Pin. OK. And your pin is it automatic after five minutes or?

MD96: I have so much information in this one, so forget it. I would never. I would never. I mean, I have seen people who have iPhones, and they do not have a pin. And I think that is crazy. Because I mean you take pictures with it. You have so much in it. Do you want to share that information with a potential pick pocket guy. I mean, if you want to share the pictures of your children and you want to share your information in your emails with someone who pick pockets you, fine do it. But for me. No way. And everybody who have access to our things need to have a pin.

LN: And it is a pin for the phone or for the system?

MD97: Pin for the phone.

LN: OK.

GV: So there is no pin for accessing the system?

MD98: No.

GV: So if there is less security guy, who is not used to making a pin in the phone. It is like sharing information to pick pockets.

MD99: Yes.

GV: It is a very dangerous thing.

MD100: Yes but I think, people who use these phones and companies who have users. I think they need to have a responsibility to teach people about basic security. And basic security is to protect your emails. Because it is not only that, because I mean you have all your emails in it also. If you do not protect it, everybody has access to it. I mean I have access to everything in my company in this phone. My whole exchange is connected to this.

And I have to say, sorry to say, I would be a moron if I did not protect my phone. And I actually considered to have so if you miss type, is it five or ten times, that it erases everything on my iPhone. I have decided not to do it, because my son he is playing with it sometimes. But then I considered that, to take that risk that people could actually sit and try hundred times. But I think I have quite good protection in my phone.

GV: Are you facing any issues regarding customization and upgrade with the existing system? Because there are data warehouses that are accessing information from it. Are you facing any problem regarding customization and upgrade with your existing CRM system?

MD101: No I actually, I mean, I have learned the system. I can tell it is quite complicated. I do not think it is user-friendly in the full extent as a CRM should be. But I have managed to customize and put out a lot of information. And I actually managed to use tickers. Are you familiar with that?

LN: I am not.

MD102: Tickers are information that you have... This information.

LN: OK.

MD103: And I actually had it on my desktop, on my computer. Then I talked to Unikum. But they said people are not using it yet. But I have been using it for one year. So I actually used before they thought they had users for it. I think there are possibilities, but is just I have to go into the manuals every time to do, you know, to put it out there. Because you have to one thing here, one thing here and one thing here. And that is... all through Unikum is how stupid things can be. Can I use the paper?

LN: Yes.

MD104: I can just give you a picture of keep it simple stupid. Because you have one icon here which is for order. You have one here which is for main system. Then you have menus coming down here. I can just say a simple thing like, variety article. I mean, this pen I put it in as article, but I have it different colors. So instead of inputting it ten times for each color, I input it one time and I put in what colors we have it in. That is called a variety article. Then you have another place where you put in an article. OK. Here I go in to search for articles. You can search for customers. I can edit customers. I can edit a lot of things here in this menu. Here I have a menu for placing orders. For you if you input variety articles, would you have in this menu together with the articles or would you put it somewhere else? Unikum they have input it under the menu of orders. For me that is completely insane. Because my mind, when I am sitting and using a system. If I work with the articles. If I work with the articles for the e-line or I work with variety articles. For me these should be together.

LN: And why is that? They cannot do it or? Because it just seems to be a system solution. They seem to just have picked a solution.

MD105: Keep it simple stupid.

LN: Yes.

MD106: I mean, they do not do that.

LN: OK.

MD107: And this is just one thing. I mean, in the CRM it is also the same thing. They should think more user-friendly. They could make it easier.

GV: My question regarding the customization and upgrade is related to different version of the system. Because up to regular time the suppliers release the versions upgraded. So during the launch of that version, any issues you find for customization your existing system with the new version?

MD108: Yes, the thing is that when we upgrade, there is also one thing. I mean sometimes not even Cygrids who do the upgrade, know that they have to go in and upgrade our mobile connect for our e-line for example.

LN: OK.

MD109: Or currencies or languages. Not even they know that they have to do it. And I think this really... If you cannot just do the upgrade for the whole system in one installation. Fine that is OK. But at least get the information out to your partners. Think about this when you upgrade. The upgrade sometimes does not work. But that is another thing. But then you have to call Unikum and they have to send a problem fix. But we always try to be a few versions back. Because then they have fixed there problems. They release it too early also. Before I upgraded when they came out and that was wild, wild west. I mean you could anywhere, when you clicked somewhere.

LN: It is like running the tests in the live network almost. It is like running the tests they should do at Unikum, they run them here.

MD110: Yes. So we do not do that anymore.

LN: OK.

MD111: But I did once actually when I had to do an upgrade. I actually agreed on be the one giving feedback to them. But then I decided it myself. But there are other times, when I have found too many problems in it.

LN: Something else you would like to say?

MD112: No

Something we have forgotten to ask about we have not mentioned?

MD113: No, I think the way to work and that data is accessible to our partners. The main contact in Germany, he has five sales people in Germany, who works for him. And he can go in, and he can see exactly the sales result of the ones working for him. So he can follow up and he has it accessible in his iPhone

LN: OK.

MD114: And that is, I think, really, really good. And I mean, he has access to his contacts. He has access to his customers. And I think it is the way to go. But a little bit user-friendly and keep it simple.

LN: Can we refer to you in this...

MD115: Of course they know that I am bugging them all the time, when I find problems.

LN: We will send what we have written down to you, so you can read it and correct any mistakes. OK, so thank you for your time.

MD116: Thank you very much.

GV: Thank you.

A3.5 Happy Accessories

Company: Happy Accessories

Role: Purchasing and manufacturing manager

Person: Tiffany Drennow

Date: 2011-05-12

Gargi Varu: If you make the order?

Tiffany Drennow0: If you make the order, immediately through Pyramid. You just lift up your computer. You type all the orders in. And this is even funny. When we print the order. When we say accept for the order, the order does not go here in the office. The order goes straight to our factory in the Philippines. So we never have any papers here. It goes straight to the Philippines office.

Leif Nordstrand: OK.

TD1: In the Philippines office we get a print out of the picking list. A picking list of for example... OK, this is the way our business work. The fashion... We do not sell retail. We sell whole sale to the stores. So the stores will say. I want six of this, six of this, six of this and six of this. Philippines will only product when they see an order. They never keep stock. We do not have stock. And that I guess is also an advantage that... If you keep stock and then you cannot sell that stock, you need to through it away.

LN: Yes.

TD2: Because you own fashion accessories. You know, it is not worth anything. The metal is worth nothing. It is not like silver or gold that you can melt again. So when they get the order, then they only produce what was ordered, so that really save us a lot of money, because we have this Pyramid system that will say OK this is this the picking list. So even if we are one week down in Germany, the Philippines factory is working every day.

LN: Are you a sales person?

TD3: No, I am more of a, I do some sales, but I am more in the production and purchasing. Because we have our factory in the Philippines. It is our own factory.

LN: Yes.

TD4: So I run that show.

LN: OK.

TD5: So I talk to them every morning. And yes, so when they get that, they do the deliveries there. They make the physical delivery and virtual on Pyramid they say, alright I have taken out the components. I have put them together. I have put in a box and I have delivered it to the Swedish warehouse. So all of this is done in the Philippines. So when we get it, they are all packed nicely with a packing list, printed from Pyramid and our delivery girl here, just put in a box, like separate UPS. Some orders are small. Some are big. So you just separate them and send them with UPS. She is here three to five hours a week. That is it. So instead of her doing everything here, closing all the manufacturing orders and all of that and spending so much money on it, you just put it on a ups package and it is delivered. So it is super efficient that way.

LN: So mobile CRM gives quite many net benefits for you?

TD6: Yes, very much. It has been... You know I was not a big fan of Pyramid before. I hated it. But now, because of what Mikael did, and now he is even thinking of having a scanner.

LN: OK.

TD7: A scanner, because the Pyramid can have a scanner.

GV: Yes.

LN: Yes.

TD8: And all the articles will show up, because we have codes for each of them. So if you just scan it. Can you imagine in a fair, we had problems already. We are small company and we already had problems of taking orders. You know we tell some of our clients, you have to come back later, because we are three people working in a both and we are typing in the laptop for Pyramid, because it is more efficient. But anyway, Mikael says I need a scanner. If I scan it, it is so quick. So if you scan it, it goes immediately there, you just press enter and then it is printed in the Philippines office. So that what I think the next plan is. I think he is also trying to look at iPads.

GV: Yes.

TD9: To make orders. Because now we still have the order blocks, because our German partners they want... I think it is to be separated from the physical paper is a little bit a step. You know you feel like, does it really work. But now all of our agents are working on Pyramid, using their individual laptops. So they are accessing Pyramid through the remote desktop also to us. So when they place the order, we do not get it, it goes to the Philippines.

LN: Have you seen any disadvantages with it so far, because it seems to be very good?

GV: Because in the start you said you hated it.

TD10: No, because I hate it now also. But now I cannot live without it. It is like no Pyramid, let us play golf. Get out of the office. Because our life really depends on it. It is so... Of course there are bugs. There are bugs.

LN: Yes.

TD11: And you are on the phone with them. What is this? But either it is a bug or we really do not get the deeper level of understanding. You know it can be something very simple. You know I just printed an inventory the other day, and I said what is this? Why is this thing coming out still? And they said, because the logic of Pyramid is like this. OK, I did not understand that. Or they did not specify it, so you do not understand it. And you only know it on a superficial level.

LN: OK.

TD12: Other disadvantages I have not really had any that I could, you know, throw my computer away. But maybe Mikael will have more. Because he knows it more in depth.

LN: Yes, but what you say is fair too.

TD13: Yes for me, I think. I still do not understand it so much; because they have not translated all of it into English either.

LN: OK.

TD14: If you see it, it is not translated.

GV: We have seen some of the parts, not the whole product. It is in Swedish.

TD15: It is in Swedish. Most of it is in Swedish. And now that I am learning a lot more Swedish and getting to understand it more, but of course for me I think it could be an even bigger business system that you can sell all over the world. But it is a little bit difficult how they spell things. It does not work yet. So for me the biggest disadvantage obviously is for them to convert in to English. Then I will understand it at a deeper level. But for now, I have to have Swenglish version.

LN: So it influences people's work quite a bit. It seems like it can save time.

TD16: It does not only save time. It has saved us manpower. Because of Pyramid, we have maybe minimum saved three salaries here in Sweden. We must have. How we work, use it so much and we are so dependent on it. And if we are handwriting it or putting it on excel files, it will not be as... I mean we would have three more people.

LN: Yes.

TD17: But know we are four.

GV: Means like the data entry work will be reduced?

TD18: Can you imagine if I have it on Excel and start to calculate it and you know like, this is the number of pieces I need and... and if I had to do it in a physical office. If I had to go to my office all the time. No, now I can just do it from home. But we have done it.

LN: You use the laptop, do you not?

TD19: Yes.

LN: Do you use the phone as well? Some kind of phone applications?

TD20: Mikael has a... where he sees the statistics of our sales for example, from last year and this year. It is from Pyramid.

LN: But you do not use that, do you?

TD21: No. I do not.

LN: But he does. So we can talk to him about that then.

TD22: Yes, he is very good with the mobile. I look at, but I do not know how he does it. I think I have it on my phone but I use it anyway. Like I said, I am like from the Iron Age, I do not know much about... Considering I am an engineer, I do not really like it. But he is really into his gadgets. So I think it is good for people who like gadgets. They are the ones who really spear head this need and this demand that I want it on my phone. I cannot like, you know, be in my office twenty-four seven. I need to have it on my mobile. So he does use it. I see the graphs all the time from his phone. So he definitely uses the Pyramid for, you know, just to see... You know it is a short access of you knows... He goes to the agents, then he says to them. Alright, this is what we have sold for. Our goal is to have this goal. He can show it immediately on the graph.

LN: OK.

TD23: And that is I think really... It really, really saves time. It generates more income for us, in that sense. We know immediately what we do not have in stock. For me in purchasing, that is also a big plus. Can you imagine if I would have to ask... We have around, at least 1000 components. But from all the way from before we had 7000 components. It is like a joke. You should memorize all of it, per gram, per piece, all the prices. I know all of it, but 7000. I am going to go crazy. But Pyramid does it all for you and then, you know, I just... Mikael has told the Philippines. This is how you find. OK. Let us say there is an order of 100000 pieces of this one. And then, you know, she says. Just look at this one in the Pyramid and it will tell you immediately. OK well we have 30000 in stock, so he needs to order 70000 from this supplier. So it immediately prints out list of what is missing in your stock.

LN: OK.

TD24: So I think is just like a dream. It is really a big advantage. And there are picture of each item, so you never get a mistake. It is our mistake that we never put the pictures on the items on all of our components. But if we did. We are doing it already now but, you know, if we had all of this, they could immediately see with the measurements, with everything, with the weight, with taxes all included. Pyramid does this for you. It computes each product like this, with the weight on, with the taxes, where it came from. You know, you buy it from... this component from Hong Kong. We import it to the Philippines. It is, let us say, two percent tax. You export it out to Sweden, and you get a twenty-five percent tax. It could compute all of it. So when you get the product itself, you know how much all, even the labor. You can input it on the product, the labor price, how many hours to make one piece, how many components, how much each component weights, how much all product weights with the packaging, how much all the taxes computed plus the freight, if you are using UPS or something. It computes all of it. So when you get your product, there are no hidden charges. That you have to say OK, my profit is this. Your profit is that. That is that.

LN: I the Philippines, do they have laptops? Are they receiving and putting in?

TD25: They have a computer. It is a desktop.

LN: Desktop. OK. There is mainly production?

TD26: Production.

LN: So you call them every day or once a week?

TD27: No, I call them every week. It is an IP phone. Mikael made local numbers for everyone. I just dial three digits. It is a dream.

LN: OK.

TD28: We do not spend any money to call them at all. And they enjoy. Do you want to see how they work? I have them on my. I have a CCTV. I open it on-line. I see them working. This is what is good about being so well connected. I mean of course, we always try to search for the best place for production, but for me, of course, I am from the Philippines. I know that we need a lot of work there. We need a lot of... You know, people do not have jobs. So when we started our factory, we could have started in China. We could have started it somewhere else, you know, that is cheap in staff. No but we insisted it is going to be in the Philippines, because then we are helping them and now of course China has a lot of problems. I am more than happy. OK we made a good decision, right. But for them to also be, because you know, the Philippines salary is quite low. You know, how they work and bla bla bla. And now they are so integrated in the Swedish way of working. They are so efficient. The weakest link in all our production is, I do not know, either our sub suppliers, our raw material suppliers. They are the weakest link. They are the slowest. When it goes to the factory. It is super fast and super efficient and super happy. We have compared it. We have been to the Chinese factories. They are so sad and... And we were like, what are these people doing? They are so unhappy. They are so slow. Look at our Philippines factory. Every day I show it. You know, they do not know, that there is the camera there and I click i open to our agent. Because of course they always say, third world country. Are you doing child labor? Then I say. Look at our factory. Then you tell them. If they are happy - not happy. If they have good work conditions. Mobile, it is you know, like they just... that technology I think is awesome. It is really, really something good.

LN: What is mobile CRM to you? You talked a lot of the advantages.

TD29: I do not use it so much.

LN: No.

TD30: For me only, I try to login to the remote desktop and I am not in the office, and then... There is no difference really. For me... I think... Of course it is always more convenient to work in your own office. You have everything around you. All papers, because I still dependent on some papers. But if you are working... If you are so comfortable with just working all on your computer, which Mikael does. He does not need to be in the office anymore. He does not. I do not need to... and we have a son. So, you know, when I was having maternity leave, we were at home and working. It does not matter. I do not know. That is all technology.

LN: Can we use what you said in our material? That is OK.

TD31: Of course.

LN: What is your name?

TD32: Tiffany Drennow.

GV: We got your contact through Cygrids.

TD33: From Cygrids, I am not surprised, because Mikael is always in contact with them trying to make things more efficient.

LN: What is your role? I think you said you are production responsible, something like that or?

TD34: I am purchase and manufacturing.

LN: Purchasing and manufacturing manager.

LN: We will write down what we have talked about. So you can see what we have written. If anything is wrong or something, you can just blue mark and say it should be like that. Because we are not interested in to something else. We want to have facts. So all your information is facts for us.

TD35: Right.

LN: You seem to be satisfied with it?

TD36: I am satisfied with it. But a disadvantage I think is, it is just a big step for those who have not tried it, who are afraid to try it. You know, you are so used to the old way. You know cannot teach old dogs new tricks that is what they always say. And I am, sort of a little bit of an old dog, and I am like... But when I see... When I took that leap forward. It really made my life much easier. But I can understand of course, those who feel like. No, I need to be in the office and I need to work on my desk and I do not want to be mobile. There is a computer thing

on your phone. And I think the disadvantage now is that it is quite expensive to set it up. That is what I always have been complaining to Mikael. I do not want to get any Cygrids invoice or Pyramid invoice. Because he is so forward, and we are so left behind. We do not understand it, and we just say. What is this Cygrids? And he just says: It is needed. But it is in the back office, you know. It is something you do not see physically. So when you see an invoice. What is this? That is, what I think, the disadvantage of mobile CRM. What you guys are studying now. It is very expensive. People do not want to invest in it. So if there is another solution to make it more efficient, then I think it would make life much easier. You get more quality of life. Because right now, people are so much into their work. They do not have time for the family and their friends. They are like always at work. So to have it on your phone, then you can actually go sailing. Because I worked on the boat.

LN: OK.

TD37: I worked when we were sailing, because I needed to work.

LN: Yes.

TD38: It gave me an opportunity to actually enjoy some hours in the sun.

LN: OK.

A4 Questionnaires

We have sent two questionnaires via email that are transcribed below.

A4.1 Oracle Team Leader

Company: Oracle

Role: Team Leader

Person: Linda Johnson

Date: 2011-05-23

Some of these answers can also be found in a document published by Oracle (2011b).

Question: Please describe your current role?

Answer: I am Team Leader at Oracle.

Q: What do you think about mCRM?

Linda Johnson0: Oracle Mobile Field Service is a comprehensive mobile solution that closes the information gap between the service organization and their field service field workers. It supports the complete field service process from task receipt/acknowledgement through status updates to debrief and task closure. Key features include spare parts ordering, sourcing and receiving as well as knowledge management access for problem diagnosis and parts reverse logistics. Oracle Mobile Field Service is part of the Oracle E-Business Field Service suite that includes Teleservice, Field Service, Advanced Scheduler, and Spares Management.

Q: What is meant by mCRM?

LJ1: Oracle Mobile Field Service is a complete, easy to use solution for field service workers and Administrators which is designed to maximize productivity. It is provided in 3 modes as service suppliers operate in many different environments:

- Store and Forward Solution to support offline access.
- Wireless Browser Based Solution to support real time access.
- Voice interface Solution to support Interactive Voice Response (IVR) access.

Q: How will mCRM influence the user's way of working?

LJ2: The mobile field service apps allow the remote field service workers to do things online/offline in real time. They can review at service calls as they're coming in from the customer, order parts, and update the service call.

This allows them to close calls faster, service the customer faster, and if it's a billable call, have the invoice sent out faster. The solutions are available on Laptops, Net books, Windows Mobile Devices, Smart Phones, Cell Phones, and Tablets including Android, iOS, and Blackberry.

Q: How can mCRM help to improve user satisfaction?

LJ3: Oracle Mobile Field Service supports best-in-class features to complete field service operations including:

- Task Receipt and Acknowledgement (accept or reject).
- Task Status Updates (traveling, working, on-hold waiting for parts, complete, etc.).
- Task Debrief (Parts used, Parts recovered, Defective on arrivals, Parts unused, Labor, Expenses, Counter readings, Resolution codes).
- Parts Ordering, Sourcing, Receiving, Transfers and Returns.
- Follow-up Task Creation and Scheduling.
- Knowledge Base Searches.

Configuration and Customization Support

Oracle Mobile Field Service provides several capabilities for application extensibility thereby enabling a field service organization to tailor the application to suit their specific business processes. These include

- Support for multiple responsibilities facilitating role based access to information.
- Support for download and upload of attachments allowing additional objects such as spreadsheets, pictures and quality plans to be linked, viewed and edited to the task.
- Support for flex fields allows service suppliers to extend the application without coding.
- Support for personalization allowing field workers to see only relevant information with the specific business process.
- Support for extending the mobile applications through a customization SDK that enables a customer to add additional screens, information and data to the mobile application effectively making it a composite application.

Q: Which net benefits can usage of mCRM give the users?

LJ4: The key net benefits are:

- Increase in workforce productivity (job completed per day)
- Better workforce utilization
- Increase Customer Satisfaction While Reducing Service Costs
- Optimize the entire service delivery process from dispatch to invoicing

It also gives net benefits as:

- Troubleshooting Using Knowledge Management
Mobile Field Service allows field workers to troubleshoot and fix the problems using the extensive capabilities offered by Oracle Service's Knowledge Management Module. This KM Module can search its own knowledge data base as well as any other knowledge or document repository. This helps to resolve problems faster especially when the field workers have not worked on similar issues before.
- Display Maps / Driving Directions
Mobile Field Service (Wireless) provides field workers with integrated mapping and turn-by-turn driving directions. The field workers have the ability to pick an address associated with the customer location or specify a new address to view the driving details for their next destination.
- Customer, Product and SLA Information
Oracle Mobile Field Service keeps the field service workers informed of customer, contact, install base and entitlement details. With this information base, field workers have the flexibility to handle any additional customer requests. This ability enables field workers to deliver superior customer service while strengthening customer relations.
- Create Follow-Up Tasks and New Service Request
Oracle Mobile Field Service (Store and Forward) provides the capability to open service request against product owned by customers assigned to the field workers. This allows techs to take on new work while

on-site without having to make a call to his/her Dispatcher or CSR. In addition, techs can add a follow-up task to the SR they are working on when they can't finish the job due to lack of time, parts or skills. Direct access to Scheduler allows the field tech to actually schedule the follow-up task while on-site greatly improving customer service satisfaction.

Q: How does mCRM help the users to achieve real-time and accurate information and to deliver up-to-date information to customers?

LJ5: Best In Class Performance.

Q: How will the users experience the system?

LJ6: Best In Class Performance.

Q: How does mCRM help employees to give service the customers?

LJ7: Best In Class Performance.

Q: Do you allow us to present your name and name of the company in our study?

LJ8: You can use the company name, however I would like to be anonymous.

A4.2 Oracle Development Manager

Company: Oracle

Role: Development Manager, CRM

Person: Anna Nilsson

Date: 2011-05-24

Question: Please tell us something about you?

Answer: My role as a Development Manager, Oracle E-Business CRM application is to,

- Work with our Product Management team and Customers to design various modules of CRM applications
- Work with technical team to develop these application and address technical and functional challenges

Q: What is Mobile CRM?

Anna Nilsson0: CRM covers business aspects to create or maintain Relationship with new or existing customers. Also it covers aspects of Customer Retention. The later aspect has become more important to any business in highly competitive business environment. Under CRM application hood, major applications are for Sales & Marketing and Service. Mobile CRM applications, are application which can help business to cover above aspects with the help of computation and mobility power of handheld devices. The devices can be from Laptop, Smart phones, Tablet PC or even a simple telephone with voice capability. Considering current and future technology trend, Smart phones and Tablet PC are becoming main platform to run Mobile CRM applications.

Q: How will mCRM influence the user's way of working?

AN1: These applications help users to make minimum errors and take best decision based on the latest data. Intelligent applications are like personal assistant for the user and helps them in performing their duty. They provide flexibility to end users and help them in managing personal and professional life.

Q: Which are the advantages and disadvantages of mCRM?

- Cover quality of information, system, service (From supplier perspective)
- User perspective

AN2: Advantages:

- Real time data access to stack holders (employees or customer)
- Helps in fast decision making
- Helps in faster customer services
- Helps to get more closer to customers

Disadvantages:

- Some technical challenges like data input mechanism or mobile network limitation

These are not actually cons of Mobile CRM but I would say they are challenges which Mobile CRM applications should try to overcome in future.

Q: Please share your experience of customers who are using your product?

AN3: We have few customers for whom it is almost impossible to use wireless devices and hence we need to design our application in a manner such that it can be used as Sync-&-Go.

Other customers faces challenges in concluding on handheld devices. In market there are many options available starting from Pocket PC, Blackberry, iPhone, Android etc. Most of them use different technology and hence it makes difficult for solution supplier to write single application which will run more multiple platforms. Also, it is hard for customer to choose any one if they are integrating two different solutions from different solution suppliers.

Q: Which net benefits can usage of mCRM give the users?

AN4: Mobile CRM application can empower technician or sales person to do up or cross selling or provide accurate estimates of work or amount. Most important thing is, mobile CRM applications provide a great flexibility to employee and enables them to get real time data from anywhere at any time. These applications help users to make minimum errors and take best decision based on the latest data. Intelligent applications are like personal assistant for the user and helps them in performing their duty. They provide flexibility to end users and help them in managing personal and professional life. Going forward any business application has to be mobile. Day by day, technology is improving and so capability of handheld devices. Also, wireless network technology has improved a lot to support complex business applications. Next generation mobile application should be smart enough to reduce information entry from a human and provide more and more visual data which can be easily referred and can be re-used.

Q: How does mCRM help the users to achieve real-time and accurate information and to deliver up-to-date information to customers?

AN5: Mobile CRM applications are more nearer to end users and also to customers. Hence they have capability to capture more accurate data from the customer and also, on the reverse side, they get the real time data all the time anywhere. For example, our application Mobile Field Service Wireless has capability to capture counter data from the customer installation. As the information can be entered into the application at the customer location only, it reduces the chance of error. If the same thing is done using traditional application then the counter information would have transmitted through paper or some other channel and may cause data lost or modification. Similarly applications like iSupport, provides real time information to customer and on other example, applications like Mobile Field Service can tell the customer about estimated invoice amount prior to doing the service.

Q: How will the users experience the system?

AN6: We have few customers for whom it is almost impossible to use wireless devices and hence we need to design our application in a manner such that it can be used as Sync-&-Go. Some customers face challenges in concluding on handheld devices. In market there are many options available having different technology and hence it makes difficult for solution provider to write single application which will run on maximum multiple platforms. Also, it is hard for customer to choose any one if they are integrating two different solutions from different solution providers.

Q: How does mCRM help employees to give service the customers?

AN7: Mobile CRM helps employees a lot. If the service technician is at the customer location, he is more confident in dealing with various customer queries if he has access to its backend office data. Technician can search the knowledge base and do his job in a better way.

Q: Do you allow us to present your name and name of the company in our study?

AN8: You can use the company name, however I would like to be anonymous.

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