Customer relationship management software as a service

What is the providers' view of advantages of CRM software as a service?

Master thesis

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Abstract

"Software as a Service" (SaaS) concept emerged in the late twentieth century as a new software delivered model and is outstanding in terms of swift software delivery. Some analysts predict that the unique of some characteristics in SaaS motivate software providers to offer many types of software as a service. Customer Relationship Management (CRM) system has been delivered by providers as a service and they uses this attribute as the sole business objective ever since the time that the company was established and it has been their core business now. There should be some advantages from SaaS and those motivate software providers for offering CRM system as a service. The problem is whether CRM system as a service certainly has many advantages in fact; meanwhile, there are increasing arguments about the benefits of CRM system as a service. Furthermore, there was lack of previous scientific researches in advantages of CRM as a service and such a knowledge gap needs to be filled. Therefore, these incentives promote a research question, ***What is the providers' view of advantages of CRM software as a service?*** This study aims to gain better understanding about the advantages of CRM software as a service from providers' perspective. During this study, eight propositions were generated from a literature review. Later on, six interviews were carried out to gather empirical data used to test the eight propositions. At the end, the research has contributed the seven advantages of CRM system as a service. It is helpful for both clients and providers to comprehend the CRM system as a service advantages.

Keywords: Software, Product, Service, Software as a service (SaaS), Software on-premise, Customer relationship management (CRM) system, CRM as a service.

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Wiphop Ruchutrakool

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Chapter 1: Introduction

This chapter provides background information of the study and definitions of the key concepts used in this study, problem area, research purpose, research question, study scope and an overall structure of this entire study.

1.1 Background

Software-as-a-service (SaaS) concept is spreading and applied as a software delivery model in many industries. SaaS itself can be in many different forms. For example, web-based email interface such as Hotmail and Gmail is a type of software as a service. The SaaS concept arose in the late twentieth century and many software providers foresaw the opportunity of delivering software application through the Internet as a competitive strategy accompanying with the Internet boom (Frauenheim, 2006). The new entrants are rapidly expanding for catching business opportunities to gain benefits from SaaS market. Some companies are able to remain and expand their business in SaaS market; while some no longer exist in the SaaS market. From a short-term perspective, analysts estimated around 30 percent of new software will be delivered according to the SaaS model by 2010 (Finch, 2006). Additionally, previous studies have shown that many kinds of software applications such as project management system, CRM system and so on have been delivered as a service model. As well as CRM system is the commercial system that clients consider to use as a service (Weier & Smith, 2007). Furthermore, there are a lot of companies offering CRM software as a service in order to response client's need that they demand to improve customer service, maintain customer relationships and promote potential business. Many big software providers such as Microsoft and Oracle also offer CRM software as a service. From this situation, it seems that CRM software as a service is one of the focuses of software providers within SaaS market. However, it does not reflect that every provider has to offer CRM software as a service. Some still deliver only CRM system as on-premise (traditional software that install in local place) and some deliver both CRM system as a service and on-premise.

1.2 Definition of Key Concept

Software as a Service (SaaS) – SaaS is a type of software delivery model through the Internet. Software, in this case, is considered as a service because software clients only use software without owing or installing it on-premise. Email system as a service, Online-game as a service, CRM system as a service, ERP system as a service etc. fall under the definition of SaaS delivery model (Anerousis & Mohindra, 2006).

CRM system – Customer Relationship Management (CRM) system is normally used in business sectors to manage and improve relationships with customers. This system provides possibilities to enhance productivity, reduce costs, increase revenues, improve customer service, satisfaction, and promote potential business opportunity (Hedman & Kalling, 2002).

CRM as a Service (CRM software/system as a service) –In order to avoid confusion about the two key terms mentioned earlier--CRM system and SaaS-- the authors introduce a new term here that will be used throughout the study which is CRM as a

service. It is a combination between CRM system and SaaS and is referred to as a CRM system/software that is delivered according to the SaaS model. It is regarded as a specific form of SaaS.

CRM On-premise – is a one specific, on-premise form of CRM system. CRM On-premise is housed at a client's location, and is managed and maintained by clients' own employees. CRM on-premise is also known as licensed product. (Waters, 2005).

1.3 Problem area

Previous studies (e.g Hedman & Kalling, 2002; Ryals & Knox, 2001; Grindley, 1995) found that many CRM adopters are cautious about CRM adoption issues such as software complexity, high total cost of ownership, and lack of strategic support for CRM installations, maintenance and upgrading. However, the SaaS provides a solution for these problems and continues to spread because of the maturity of the on-demand delivery model and the provided functionalities (Weinberger, 2008). Consequently, SaaS seems to have many advantages such as low cost of entry, minimal investment on internal IT resources and short system implementation time.

Furthermore, Fan, et al. (2008) point out that SaaS delivery model eliminates the potential complex system (such as ERP and CRM) implementation difficulty, unexpected high implementation costs and potential expensive consultant time. These reasons increase SaaS provider's confidence to invest in the SaaS market despite the recent global economic decline (Lamont, 2009).

However, Lashar (2008) states that the effort for data conversions in SaaS implementation can actually be more complicated and time-consuming than on-premise implementation and SaaS does not necessarily offer software cost saving advantages from a multi-year perspective. Normally annual on-premise software maintenance fees are probably even lower than annual SaaS subscription fees (McKay, 2008). Moreover, most providers charge extra fee, for example, direct database access or individual customization support (Healey, 2008). Furthermore, there is an increasing concern about the data security issue in SaaS due to the computer virus problem and the trust in SaaS providers (Atkinson, 2008).

Unsurprisingly there is a lack of scientific research toward to the SaaS topic. The majority of SaaS-related publications are from business magazines and non-scientific journals. They primarily discuss on topics such as SaaS features, SaaS service charge, and advantages of SaaS pricing mode. On the other hand, scientific CRM-system literatures and researches concern topics such as, the general concept of CRM system, classification, main components, and core functions. Combining research knowledge from these two areas of CRM system and SaaS, it is practicable to conclude that there is lack of scientific researches that focus principally on the advantages of CRM as a service. This problem area covers many issues regarding CRM as a service, including all cost types (unused license, capital investment and so forth) saved by SaaS model, system installation, maintenance, upgrading, integration, and data security.

1.4 Purpose and research question

In order to fill the knowledge gap about advantages of CRM as a service, the purpose of this study is set to gain a better understanding about advantages of CRM as a service from providers' view. The authors believe it is easier to gain a more comprehensive and representative view about the advantages of CRM as a service from provider's perspective since providers are tightly related with their clients and have knowledge of a broader range of their clients' opinions about advantages of CRM as a service. This is the reason for focusing on providers' view about advantages of CRM as a service. However, the authors do not claim that providers' view can cover all advantages of CRM as a service.

In the previous section shows that SaaS providers encounter many questions and doubts about the advantages of SaaS. This situation causes to the consideration about why providers believe that SaaS has its advantage. Because of the speed up of business globalization and tighter competition, company places customer relationship management in a more important position. CRM system, a tool for managing and improving customer relationship, is becoming the focused objective in this research study regarding information system field. Formerly, software providers only provided CRM system on-premise. Nowadays, the CRM system market is changing, clients' need on CRM system is altering and software providers could provide CRM system as either a service or on-premise or both combined. The emerging SaaS model and CRM as a service should have selling points from provider point of view. Besides, providers offer many software applications such as ERP system, financial system, project management system, CRM system as a service in currently software market. It is interesting to discover the reasons that CRM system has been one of the focus areas in SaaS application development. Moreover, previous studies show many SaaS providers offer CRM as a service focusing on many small and medium sizes, or even multinational companies. Thus, it is possible that CRM as a service might provide advantages to both providers and clients.

This study aims to contribute to scientific researches in the advantages of CRM as a service as well as CRM as a service providers, potential providers, clients and potential clients with better understand advantages of CRM as a service. All above-mentioned reasons are the motivations for authors to design and carry out this study.

Consequently, the research question for reaching the purpose of this study is set as:

> *What is the providers' view of advantages of CRM software as a service?*

This research question will be investigated using the three follow sub-questions:

- *Q1: What is the current understanding in the literature of advantages of SaaS?*
- *Q2: What does service mean to CRM as a service providers?*
- *Q3: What are the differences between CRM as a service and on-premise in providers' views?*

Investigation question one (*Q1*) is placed in order to gain the literature knowledge about the advantages of SaaS and gives the initial base knowledge for the research

question. The second question (*Q2*) is to obtain providers' knowledge of service and could give better understanding of service concept in CRM as a service. Lastly, the purpose of the third investigating question (*Q3*) is to acknowledge better understanding of differences between CRM as a service and on-premise. Since CRM as a service and on-premise have many different characteristics, the comparison between these two could give better views on CRM as a service.

1.5 Scope

In order to clarify our research topic (Customer relationship management software as a service), the study was carried out to focus only the advantages of CRM as a service. In addition, the authors' emphasis on the advantages of CRM as a service in this study could concern both CRM as a service providers and clients. However, the advantages of CRM as a service in this study are only from CRM as a service providers' views. Hence, this study does not cover clients' view about advantages of CRM as a service. In principle, these types of advantages could be interspersed in different ways, for example, it might be in terms of low entry cost, no requirement for capital investment, internet based system accessibility, frequently software upgrade, shared IT specialist expertise. Due to the research purpose was to gain a better understanding of about advantages of CRM as a service, it is firstly described about the CRM system which include its purpose of use, core functions, classifications, and components (cf. Section 2.2). Afterwards, this study continues on to elaborate on SaaS and its advantages (cf. Section 2.3). Later on, the study concerns only CRM as a service and negligent the meanings of other types of software as a service such as Supply Chain Management as a service, Project Management as a service. Since CRM system has classification, the authors emphasize that "CRM" in "CRM software as a service" is only referred to the generic CRM system in this study. Furthermore, the other possible research areas such as the advantages of CRM on-premise, the disadvantages of CRM on-premise, and the disadvantages of CRM as a service were not included in this study. At the end, as the research question described, the interview target was only the provider offering CRM as a service. Table 1.1 illustrates this study scope:

Table 1.1 Research focus		
	Advantage	
	Provider's view	**Client's view**
CRM on-premise	X	X
CRM as a service	**Thesis Contribution**	X

1.6 Disposition

Chapter 1, Introduction

This chapter describes overview information of this study, including the background information, definition about the key concepts used in this study, problem area, research purpose, research question, and the research study scope.

Chapter 2, Theory

In order to fill the base knowledge for research question from chapter 1, the literature review part of this chapter describes CRM system and SaaS knowledge. Sequentially, integrating CRM system and SaaS knowledge to generate CRM as a service knowledge, in case, a set of propositions regarding CRM as a service advantages were generated and those propositions are the source of conceptual framework

Chapter 3, Methods

In order to carry out the study to answer the research question from chapter 1, chapter 3 describes the research methods applied in this study including research purpose, research strategy, selection of interview company, number of interviews, interviews issue, data analysis, validity, reliability, ethic, and the execution of the study. Furthermore, the choice made, the motivation of the choice and theory support behind the choice were discussed regarding all these issues in research methods.

Chapter 4, Empirical data & analysis

This chapter is used to present empirical finding, analyze and conclude empirical result from interviews. Firstly, all interview companies were generally described to give overview information about their background. Later on, empirical data from each interview company was listed and summarized as evidence for proposition testing. Furthermore, propositions regarding CRM as a service advantages from chapter 2 were tested with the empirical data evidence to clarify the research result.

Chapter 5, Conclusion and discussion

Chapter 5 summarizes the whole research study, discusses the overall research result based on chapter 4, handling of the research purpose and question based on chapter 3, research contribution and problems connecting to the research, discussion about this research study and proposes some further study points.

Chapter 2: Theory

This chapter provides information of the study from the literatures. The concept of CRM system, Software as a service including CRM as a service are defined in this part. Furthermore, this chapter contributes to the propositions in this study.

2.1 Literature study

In order to set the theoretical propositions in this study, the literature review part focuses on two areas of interested in this study; SaaS and CRM system. CRM system literature review is conducted from academic literatures available from Lund University library. The collected literatures from library contain information on software application classification, product concept, service concept and CRM system. On the other hand, SaaS-related literatures come from scientific and non-scientific literatures since this research topic is relatively new. Few researches and literatures are available on this topic. Thus, scientific and non-scientific literatures on SaaS from the Internet-source are used. ELIN@Lund (an electronic journal database available through Lund university library website), SpringerLink and Google scholar are examples of databases providing both scientific and non-scientific literatures used in this study.

ELIN[1] – ELIN represents Electronic Library Information Navigator, which gathers information from many e-journal, databases and open archives, which allows end-users to easily navigate electrical documents. Many academic institutions also license ELIN.

SpringerLink[2] – SpringerLink is a database providing journals, books, eBooks and the Online Archives Collection by subject categories. SpringerLink is available at

Google Scholar – database which consists/comprises of the large amount of journals, eBooks and research from around the world.

2.2 Customer Relationship Management System

2.2.1 Information system classification

A literature review on Information system classification in conducted in this study because, first, CRM system is the focused software in SaaS, thus, it is useful to properly categorize what category CRM system belongs. Second, different information system has different purpose of use and third various information systems delivered according to software as a service module might be different among themselves in many aspects. For example, CRM system as a service is very different from email system as a service or online game system as a service in many aspects, ranging from service-charge practice to usage purposes.

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[1] http://elin.lub.lu.se/
[2] http://www.springer.com/

Currently there are many different types of information systems available in the market but their classifications are still ambiguous which makes it difficult to understand the actual type of information systems people are referring to. This is the problem of system overlap according to Alter (2002). Therefore, the authors show the following information systems classification according to the business model, which is shown in Figure 2.1.

Figure 2.1 Information system classifications in business model
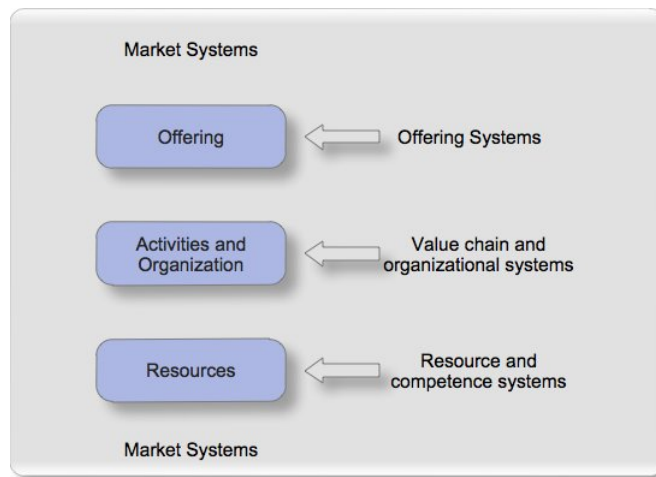
Source: Adopted from Hedman & Kalling, 2002, p.157, 176, 192, 210

In the above classification, Hedman & Kalling (2002) categorizes information system into four main parts according to the business model: Market System, Offering system, Value chain and Organizational systems, and Resource and Competence systems. All of them have different focus area in the business model. However, one of the most important characteristics of Information system is scalability, which makes capacity adjustment more flexible without overrunning the risk of system-collapse. The reason is that if the information systems were over-upgraded, they would be damaged. Alter (2002) portrays this situation using a trailer example. He compares system upgrade with a trailer. If one puts a trailer behind a car, it works because the car is designed to handle the weight of a trailer. In the opposite case when a trailer is put behind a bike, it does not work because the trailer is too big and heavy for a bike.

The market systems is able to help organizations to connect to both suppliers and customers simultaneously; the offering systems concern products and services offered, and its development costs; the value chain and organizational (VCO) systems mainly influence value chain and organization activities; Resource and Competence systems manage physical and knowledge resources. Meanwhile, CRM system is positioned in the market system due to its ability to manage the relationship between companies, suppliers and customers. This section aims to give an overview of information system classification according to Hedman & Kalling (2002) but does not aim to discuss any particular system in detail. The CRM system, which is the scope of this study, will be further discussed in the following section. (cf. Section 2.2.2.)

2.2.2 What are CRM systems?

Customer relationship management (CRM) systems typically support marketing management, customer retention, advertising promotion, sales prediction and customer service support (Stair & Reynolds, 2008). There are two main elements of CRM system; analytical and operational (Selander, 2008). The analytical part is to maintain historical data such as data warehousing and data analysis from data warehousing to support market plans and/or campaigns. The operational part concerns data collection from customer interactions such as service inquiry, customer's website activity, data storage and integration. The initial concept of CRM system is to assist and improve organization's vision, not merely enhancing sales revenues (Selander, 2008). Schwede (2000) provides similar explanations to CRM systems as Selander's but further distinct CRM systems as follow;

- Analytical CRM systems support Operational CRM systems, manage and analyze customer's information to gain a better understanding on each individual customer and behavior. For example, data warehousing and data mining are typical analytical CRM solutions.
- Collaborative CRM systems are the communication center for customer interactions. The communication channels are managed and synchronized by these systems.
- Operational CRM systems support the efficiency of front office business processes and comprise solutions for sales and marketing automations.

2.2.3 CRM system components

A CRM system includes data-processing logic and offers the following components covering comprehensive customer activities (Hedman & Kalling, 2002).

- An opportunity management component enables company to manage and monitor the sales process.
- A configuration component enables configurations of product price, customer service and other similar activities.
- A partner relationship component enhances the partnership with other company and helps to improve sales and quality of customer services.
- An interactive selling component allows the company to do business directly with customers.
- A call center component helps company to register incoming information, such as telephone calls, and manage telephone transactions.
- An analysis component provides functions such as data query and report generating.
- A campaign management component enables company to design business strategy based on customer segmentation.

All these components are basic functions typically included in CRM systems, however a CRM system may or may not contains all system components described here. On the other hand, it is not necessary that every organization adopting CRM system needs to have all of described functions. It can select some functions, which are significant to organization operations (Hedman & Kalling, 2002).

2.2.4 Core functions of CRM system

The core function of CRM system (Firth & Lawrance, 2006) contains four important sections. Figure 2.2 illustrates how these four important sections are linked together to form the CRM core functions.

Figure 2.2 Core functions of CRM
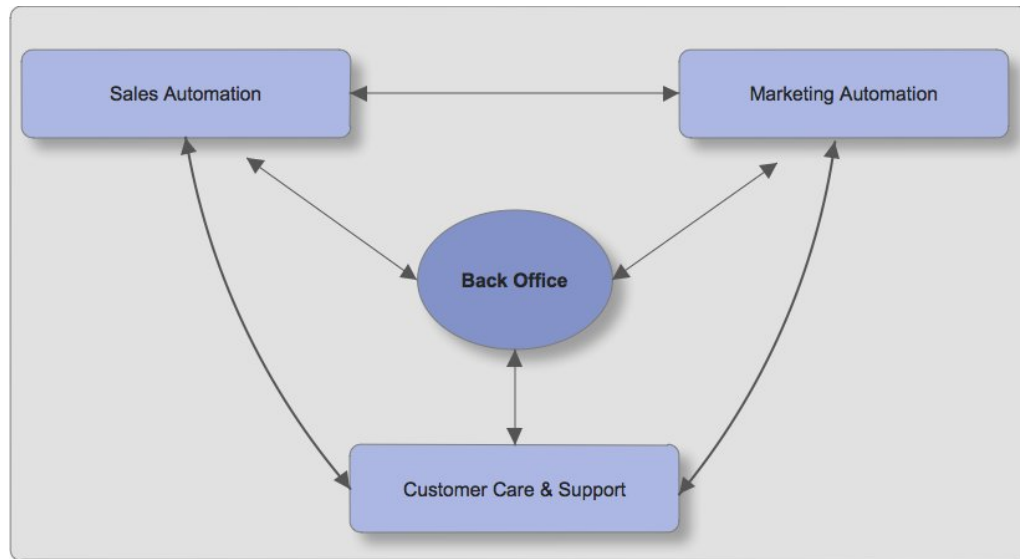
Source: Firth and Lawrence, 2006, pp.23

As Figure 2.2 shows, the CRM system plays an important role in coordinating information among sales, marketing, and customer-related activities such as customer preference and order information through a back office function. CRM systems deal with huge quantity of customer data so a proper IT management is needed to effectively manage people activities (Hedman & Kalling, 2002). CRM system makes direct information exchange between different department and further improve the whole work efficiency.

However, Greenberg (2001) states that there are no universal standard functionalities included in all CRM systems. The reason is because each company has its unique needs, customers target and market determined the needs. Therefore, the concept of customization, which is to gain the product features as individual needs (Alter, 2002), is needed to use in this kind of system. Furthermore, Stair & Reynolds (2008) emphasis CRM system customization can be expensive. Even if the design of CRM systems follows a basic principle, there is the need to customize the CRM system to fit every specific situation when the CRM systems implemented in each company or industry.

2.2.5 CRM system implementation

It is difficult in managing CRM project from its scope aspect since organizational goal seems to change frequently. Company management board feels the investment in IT project is not that worthy, because the real benefit from IT project is much lower than expected. (Ryals & Knox, 2001) Furthermore, Grindley (1995) emphasizes that

board of directors are stressed from large-scale investment required for IT infrastructure. Selander (2008) states the implementation of CRM system is not easy and the acceptance, adoption of CRM system is even more difficult to anticipate. In addition, CRM system implementation takes years and has other complexities in technical aspect. The implementation of CRM system concerns also the license fees and system management costs. Furthermore, CRM system also makes it more difficult for clients to switch providers because provider-switching cost is enormous. Furthermore, CRM system has the effect on resource level according to the business model. CRM system is expensive to implement and the cost runs with number of functions implemented. Hardware as well as construction investments are necessary since sometimes a customer service center is built for a purpose of CRM system implementation. Besides, CRM system implementation and usage needs skilled labor including system implementations and end-users who require intensive training investment. External consultant is an option to in-house trained implementers but the cost associated is also high (Hedman & Kalling, 2002).

2.2.6 CRM system and IT

As mentioned earlier in Section 2.2.4, that CRM systems deal with huge quantity of customer data from various customer interaction points, such as telephone, email and a website. CRM system can change the possibility of data exchange between people and organization. For example, people can contact any organization at anytime while the necessary customer information is retrieved from an internet-based CRM system. Moreover, CRM system is possible to integrate with other systems, such as Enterprise resource planning (ERP) systems and SCM[3] systems (Hedman & Kalling, 2002).

The following Figure 2.3 shows the relations between CRM system and other systems including some crucial interaction points among systems.

Figure 2.3 CRM systems and IT
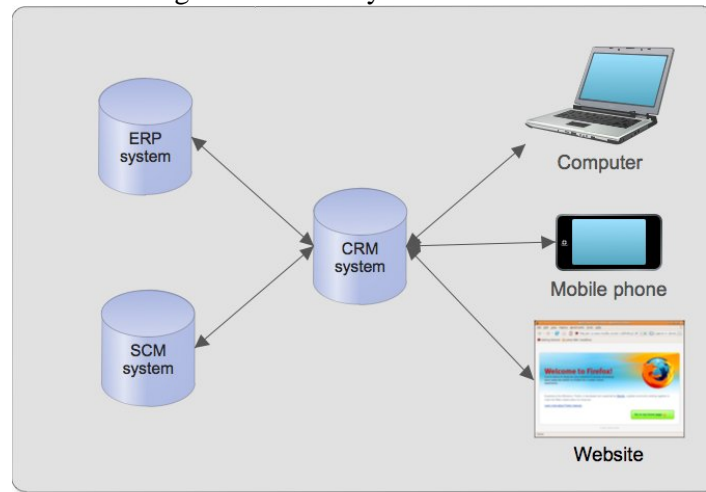
Source: Adopted from Hedman and Kalling, 2002:158

Hedman & Kalling (2002) further gives an example on how the CRM system works. When a customer calls the service center, CRM system will determine customer

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[3] Supply chain management

according to customer ID. This customer ID allows the CRM system to re-route the call to specific service person with regard to that customer or product's requirement. The service person can pick up the call and answer according to customer's inquiry. In the case that the customer has a computer monitor problem and need to repair it, the service person will forward the customer request to the nearest technical support center for customer. Later on, a technical person will visit the customer at his location to repair such monitor. However, this process only works when the customer profile exists in the system.

2.2.7 Business problems solved by CRM system

Hedman & Kalling (2002) further illustrated a typical business problem solved by CRM system. Imaging a company produces car and truck. Car production line requires different material, production procedure with truck production line. As a result, company normally has two divisions; each division manages a production line. For example, truck division takes care of truck production line involving all activities of the truck production. The same idea applied to car division. In this situation, a buying company has to place two separate orders-one for car and one for- truck if it wants to buy both car and truck. Later on, the buyer has to fill in different order forms, writes down different service contacts from both car and truck divisions. The buyer even has to pay the bill separately even though both car and truck are from the same company. This situation causes inconveniences for both buyer and seller. Another disadvantage for buyer in that situation is that it would not be eligible for quantity discount if it had been made available because technically these two orders are separately placed in two divisions. This situation might sound ideal for the selling company only if the buyer does not go to another selling firm. In case, the selling firm has the possibility to lose the customer because first it cannot offer quantity discount and second customer needs to contact them double-time during all sales processes. Customer prefers to see only 'one face' of the seller. CRM system is able to help selling firm to solve this problem by providing global inventory information such as data warehouse across different divisions. Therefore, it can retrieve customer's data from one customer's database, which gather all customer-related information such as name, customer ID, and log (Hedman & Kalling, 2002).

2.3 Software as a service

2.3.1 SaaS characteristics

Software as a service (SaaS) is a software-delivery model named in several ways, such as off-premise, on-demand, subscription software or pay-as-you-go. The systems are delivered as a service for clients. SaaS is offered in web-based form so that clients can access the system that is installed in a data center, carried on afterwards and served by the specific service providers via a browser through their own devices (Anerousis & Mohindra, 2006). Because software provider hosts the software in SaaS delivery model; the software license ownership is shifted from the client to provider (Laplante, et al., 2008). Therefore, clients, now, have no use of IT department. Furthermore, SaaS use a multi-tenant architecture[4] that enables multiple users to use

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[4] Multi-tenant: Clients share and rent the software application through Internet by using web-browser (Javier, et al., 2008). This architecture enable different clients use the same software application. Each

the same application at the same time. In addition, SaaS is delivered through a framework that makes possible the customization so that clients are able to edit some features by themselves. Furthermore, SaaS service-fee is charged monthly per user and per function (Anerousis & Mohindra, 2006).

2.3.2 SaaS components

Anerousis & Mohindra (2006) give details analysis and categorize the component of SaaS. There are five components namely: End users, SaaS providers, SaaS developers, SaaS Hosts and Hub provider, which are discussed below.

- End-users: Small and Medium Business (SMB) is a big portion of SaaS clients.
- SaaS Providers: the companies provide SaaS services.
- SaaS Developers: the software engineers develop software applications for SaaS provider.
- SaaS Hosts: the hosting companies manage the infrastructure used for delivering software application online. SaaS provider does not need to be hosting side; another company could be hosting side. Client can also acts as a host of software application.
- Hub Provider: since there might be the need to integrate SaaS with the existing system in client side, hub provider is entity for this purpose.

Furthermore, Anerousis & Mohindra (2006) state two more group of people deal with SaaS delivery platform:

- Platform administrators: this group of staffs manages the IT infrastructure to host SaaS application.
- SaaS administrators: this group of staffs manages SaaS application version issue.

2.3.3 SaaS service

There are two categories of SaaS service serving clients according Liao & Tao (2008). First, the provider offers the system to a group of users. Software applications delivered as a service through Internet and aim for more than one user, such as CRM system, SCM system, ERP system, project management system, and financial system are examples of SaaS aimed for a group of users. Software provider normally charges a monthly fee based on number of users. Second, service for individual is served by SaaS applications and normally is free of charge. Web-based email system such as Hotmail (www.hotmail.com) is an example of this type of SaaS.

2.3.4 SaaS Platform

Anerousis and Mohindra (2006) mentioned the SaaS delivery platform is designed for SaaS providers. This platform can be categorized into seven key modules:
1. Access Services is the point connecting between users and system. It is located

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client connects with a software application instance and there is no data interrupt between clients (Anerousis & Mohindra, 2006).

in the provider's site. Both clients and SaaS administrator (providers) use this point as the entrance of system. It controls the users, here refers to both clients and SaaS administrators, validation and permission before allowing them to use the system.

2. Platform support service is the module using to support the offering SaaS application. It contains two groups:
   - Business Support Services-is the service portal for clients to contact SaaS providers. For example, when clients find any problems in application, they can go through this service portal to find the solution as a self-help provided by service-provider.
   - Operation Support Services- contains the collection of systems that containing tools for deploying, operating and monitoring SaaS applications.
3. Security Services manage the access control of system. It contains users' role data linked with SaaS subcribers. This service operates with the Access Service to control users.
4. SaaS Management Services offer lifecycle management of system. It is the responsibility of providers to develop and maintain system.
5. SaaS instances is the real application that provider offers it as a service. This instance is configured by providers and is delivered to clients after they have subscribed to the application.
6. Data services control data used in SaaS instances.
7. Integration Services is used to access enterprise data saved in the provider's server.

2.3.5 The advantages of SaaS

This section illustrates the advantage of SaaS that described from both provider and client perspectives. Table 2.1 shows the advantages of SaaS.

Table 2.1 The advantages of SaaS	
	Advantages
Providers	• Reducing cost and time for managing and maintaining system • Hasting the software upgrading for improving
Clients	• Saving upfront costs and maintenance costs • Reducing the risks resulting from software acquisition • Conveniently expand the number of users • Easy to customize system features • Reducing time consumption in implementation phase • Easy system access • Focusing more on core-business

The primary advantages for providers offering SaaS are

1. SaaS reduces maintenance costs for providers (Liao & Tao, 2008) since they are the one handle all clients' need from their location including updating and

customizing systems. SaaS is completely managed by providers; therefore, they can upgrade and fix the system without personally visiting clients' sites. (Chou, 2007).

2. SaaS helps software providers in hasting the software upgrading to improve their competitiveness in the market (Liao & Tao, 2008). Due to the fact that SaaS is offered to customers through a web-based platform, providers can continuously update new version. Therefore, they can offer new functions for clients faster than software on-premise, which they have to send new version as an application disk to all clients for updates (Waters, 2005).

The principal advantages of using SaaS from customers are:

1. SaaS assists client saving upfront cost typically including server, network, license, database software and operating system cost because service providers are responsible for paying those costs instead (Anerousis & Mohindra, 2006). SaaS clients no need to own an IT department to develop and maintain system becuase providers are in control of these tasks (Liao & Tao, 2008). Furthermore, SaaS is able to cut off unused-function cost since providers generally bill clients based on the number of users and function used (Dubey & Wagle, 2007).

2. SaaS reduces the risks resulting from software acquisition. As the fact that clients do not need the deployment of large IT infrastructure at sites, therefore, when they are disappointed with service results, they have option to abandon this service and seek for a new different service without having to concern about expensive IT infrastructure. Furthermore, SaaS providers are able to deliver demo version of the software through their website. This gives a chance for customers to try the software before they buy it (Finch, 2006).

3. SaaS clients can easily expand the number of users because SaaS is delivered in a multi-tenant architecture. This architecture makes providers delivering more scalable to clients (Kaplan, 2007). It authorizes client access to be scaled to the number of users instantly because its process does not affect other processes when expanding (Chou, 2007). Furthermore, clients are able to adjust the number of users accompanying their real business developments and operations. Thus, they have more flexibility in controlling number of users for future business provisions (Trapp, 2007).

4. SaaS clients easily gain customized system features (Anerousis & Mohindra, 2006). One of the advantages of service-oriented software is the ease of adjustment. The customizations of CRM as a service have already started with the modification of user-interface such as color modification (McNee, 2007). Currently, several CRM tools enable clients to individually process system customization. Therefore, clients are able to modify the system without concerns caused by functional error (Weil, 2007).

5. SaaS reduces time consumption in implementation phase because there is no installation and configuration at client sites (Waters, 2005). Thus, clients can utilize the application quickly because the usual time takes for installation is

less than few weeks (Anerousis & Mohindra, 2006). Furthermore, it is easy to integrate SaaS with existing systems in client's company because of the services-oriented architectures (SOA). Thus, clients do not have to merge the system (Mcdonough, et al., 2008).

6. SaaS helps clients to focus more on their core business competencies because they do not have to concern about any IT infrastructure it is the responsibility of SaaS service providers (Laplante, et al., 2008).

7. SaaS assists clients to access the application and update data regardless where there are. They just have Internet and web-browser in order to log on and use the application (Quist & Robertson, 2005). Furthermore, this feature enables staffs work from their locations such as work-at-home. Therefore, they do not have to go to the head office in order to access the system. This allows staff to work at anywhere and anytime (Stimpson, 2008).

2.4 SaaS versus On-premise

2.4.1 Service vs Product

Table 2.2 Service vs Product	
Services	**Products**
Intangible	Tangible
Heterogeneous	Homogeneous
Use, production, and distribution at the same time	Distribution and production disparate from use
A process or activity	A thing
Value created in the seller and buying interactions	Value created in production or operations
External participants involved in the production	No external involvement in the production
N/A	Can be held in stock
No ownership	Ownership transfer

Source: Grönroos, 1984 cited in Hedman & Kalling,, 2002, pp.186

Hedman and Kalling (2002) defined the service is an intangible object that the ownership does not belong to buyers because the action is from someone doing work. Actually, people get in touch with many kinds of service very often. The following examples illustrate this service concept clearly.

One real life example is foreign students study in Sweden. These students need to find a place to stay. It seems like most of the foreign students would like to rent a room instead of buying an entire house from a housing agency or a private house owner. In this situation, students rent and use the room 'service'.

Another example can be portrayed from furniture moving from an old house to a new house. Most people would like to rent a truck probably for hours or day(s) to help moving the big, heavy furniture for convenience and efficiency reasons. Normally, people would not like to buy a truck for just for moving furniture from an old house to a new house in real life. From these two examples, we can see a common phenomenon that people needs certain service from certain product (car, room, etc).

As the above examples shown, the service concept is defined as the action of helping or doing work for customer and "a detailed description of the customer needs to be satisfied, how they are to be satisfied, what is to be done for the customer, and how this is to be achieved". (Edvardsson, et al., 2000 cited in Goldstein, et al., 2002).

Whereas, there are many products around us such as table, chair, car, truck, computer, and house, and so on. The product is a tangible object that its value is added in production process while the distributing, producing and using product are occurred in different time. The product belongs to buyers after purchasing and they receive product as a thing. At the same time, product could be stored under certain environments (Hedman & Kalling, 2002).

2.4.2 Software On-premise

The software on-premise is software delivered as a product, in which software needed to be installed and run on the customers' hardware, such as servers and personal computers (Waters, 2005). Customers possess the whole system for both hardware and software. Since they own the software, they have to invest in IT infrastructure and maintenance costs including system configuration process (Dubey & Wagle, 2007). Clients companies have to pay for license fees at first-time installation when they use on-premise model (Chou, 2007). Moreover, since the software on-premise cannot be broken apart into various specific functions and cannot be sold separately, clients have to pay license fee for the whole system (Langedijk, 2006). Furthermore, it is very important for the client's company to have an IT department that is responsible for the system maintenance and always keeps the company up to date with the latest version of the application. Since the software on-premise is updated by clients from system-updates handed out from software companies (Mcdonough, et al., 2008).

2.4.3 Different between Software as a service and on-premise

Figure 2.4 On-premise versus SaaS
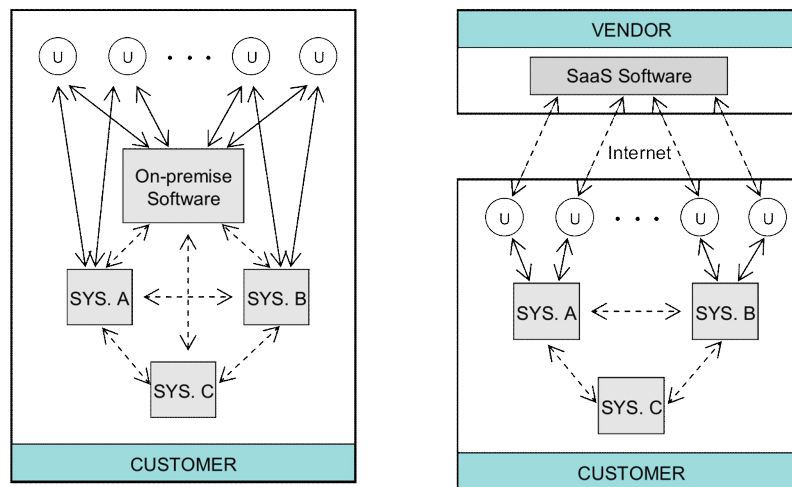
Source: Jiang, et al., 2007, pp.6

There are many different points between SaaS and Software on-premise. First, the delivery model of SaaS and on-premise are totally different. SaaS provider allows people access to use software application through Internet by web browser (Bennett, et al., 2000). While, the software on-premise is offered as a product that software needed to setup and configure at customer's location (Waters, 2005). Next, the license ownership of application is dissimilar. The license ownership of SaaS belongs to providers due to they hosts the whole software system (Laplante, et al., 2008). Whereas, customer possess software application when they implement software on-premise (Dubey & Wagle, 2007). Therefore, it is normally necessary for them to have their IT department in order to manage the system. In contrast, SaaS system normally requires only few IT people to look after the system and clients do not have to concern about update issue because all of these tasks are the responsibility of provider. Furthermore, providers charge clients in SaaS as the subscription that clients have to pay per month per user (Anerousis & Mohindra, 2006). In contrast, providers

can gain money from the first-installation that customers spend money for whole system (Chou, 2007). Following table 2.3, it summarizes the difference between SaaS and On-premise.

Table 2.3 Difference between SaaS and on-premise		
	Software as a service	**Software on-premise**
Delivery	Web-based	Local Installation
License Ownership	Provider	Client
Payment	Per month per user	Per license
Support Stuff	Few administrator	IT department
Upgrade	Continuously and automatically from providers	Dependent on new version updated from providers but installation falls on client.

2.5 CRM as a service

As previous sections described literature review of CRM system and SaaS knowledge respectively, the researchers integrated CRM system and SaaS knowledge to generate CRM system as a service knowledge for empirical investigation in this study. CRM system as a service (CRM as a service) is a CRM system (generic CRM system in this study) delivered through Internet under multi-tenant architecture (cf. Section 1.2 & 2.3.1). CRM as a service is a kind of SaaS and has features such as the characteristics, advantages as SaaS. At the same time, CRM as a service has the same purpose of use as CRM system, and the purpose is to assist managing marketing, improve customer relationship, promote advertising, predict sales, and support customer service (Stair & Reynolds, 2008). Furthermore, from CRM system and SaaS literature review, the researchers concluded the following situations:

The frequently changing of organizational goal increases the difficult in managing CRM project from its scope aspect issue. Company management board has big concern and worry in investing in IT project because what they get back from IT project is much lower than expected and it is not worth. (Ryals & Knox, 2001) Furthermore, Management board afford big stress by large scale investment in IT infrastructure (Grindley, 1995). Selander (2008) states the implementation of CRM system is complex and another problem is the difficulty from CRM system acceptance, adoption. Moreover, CRM system implementation cost is expensive, and more functions cost more implementation investment. Hardware investment is essential and sometimes CRM system implementation also needs customer service center implementation. Beside, the company needs skilled labor to finish CRM system implementation and the company might need to invest in training labor to be skilled or get the help from external system consultant. Furthermore, the end user might need training in order to use the system. (Hedman & Kalling, 2002) Meanwhile, SaaS helps client to save upfront cost, such as server, network, license, database software and operating system cost. On the other hand, service providers pay for those IT infrastructure and software (Anerousis & Mohindra, 2006). At the same

time, SaaS helps clients to eliminate their IT department, which is responsible in developing and maintaining system (Liao & Tao, 2008). Moreover, SaaS helps clients to save unused function model cost since providers normally charge clients based on the number of users and function used (Dubey & Wagle, 2007). In addition, providers do not charge clients for an entire system as the software on-premise thus, the cost of CRM as a service will be cheaper than on-premise. Clients would be able to eliminate the unnecessary expenses, which might result from unused-function occurring in on-premise (Bennett, et al., 2000).Thus, the authors derived at our first proposition on advantages of CRM as a service:

- *CRM as a service reduces large capital expense for both IT infrastructure and unused-function costs for clients.*

The license fees cost and system management cost are two issues in CRM system usage. Furthermore, client has more difficulty in switching CRM system provider because of the high switching cost. (Hedman & Kalling, 2002) In contrast, SaaS has an advantage to reduce software acquisition risk. Because SaaS provider held all the IT infrastructure and software, thus, client has the option to terminate this service and look for a new provider without any concern. Furthermore, SaaS providers normally launch trial version of the software in their website. Customer can try a certain time and this gives customer a chance to test whether the system is really fit for the company needs (Finch, 2006). Therefore, they do not worry about discarding the application due to the SaaS characteristic that client does not need IT investment (Anerousis & Mohindra, 2006). Consequently, the authors suggest our second proposition as follows:

- *CRM as a service is able to eliminate much of the software-acquired risk for clients.*

CRM systems deal with huge amount of customer data such as customer preference, order information, and so on (Hedman & Kalling, 2002) Scalability is one important characteristic of Information system and it makes capacity adjustment without problem. If the information system has been upgraded over its capacity, then damage will happen to information system. (Alter, 2002) Meanwhile, due to SaaS is delivered in a multi-tenant architecture; thus, this feature makes SaaS provides more flexibility in expanding the number of users and clients could gain more scalable (Kaplan, 2007). The new expanding will not affect the other clients (Chou, 2007). Furthermore, SaaS gives a chance to clients to adjust the number of users accompanying their real business developments. Thus, clients have more flexibility in controlling number of users in long-term perspective (Trapp, 2007). Thus, the authors list the third proposition

- *CRM as a service allows clients more scalability in user expansion.*

The idea of customization is to satisfy individual needs with specific product features (Alter, 2002). Greenberg (2001) states different CRM system might have different functionalities. The reason is because each company has its specific needs, targeting

customers and its target market. Although CRM systems design follows a basic principle, there is still the need to customize the CRM system to fit every specific situation, company or industry. Furthermore, Stair & Reynolds (2008) emphasis CRM system customization can be expensive. Meanwhile, the main SaaS characteristic referred to is about offering software system through a standard structure but make it possible to customize it according to clients' requirements (Anerousis & Mohindra, 2006). The systematic function of SaaS is easily customized within ranges of codes, offered from providers, although SaaS is delivered through the same standard for all users. (Gold, et al., 2004) Service-oriented software has one advantage, which is the easiness of adjustment within scope. Color modification is probably the earliest customizations of CRM as a service and it happens in the modification of user-interface (McNee, 2007). Clients are able to modify the system without concerns caused by functional error since several CRM tools enable clients to individually process system customization (Weil, 2007). Therefore, the authors implied the knowledge above and generated the fourth proposition:

- *CRM as a service makes CRM system to be customized easily.*

Normally, taking years time to do CRM system implementation and complexity in technical aspect is a big concern of CRM system implementation (Hedman & Kalling, 2002). Meanwhile, Waters (2005) states SaaS helps to reduce time consumption in implementation phase due to there is no installation and configuration in client's site. Thus, clients can utilize the application quickly because it usually takes less than few weeks for installation (Anerousis & Mohindra, 2006). Because of SaaS characteristics (cf. Section 2.2) that clients do not have software installed in their sites. All processing systems run on provider's IT infrastructure. Clients can utilize system by having only web browser and the Internet (Bennett, et al., 2000). Furthermore, SaaS makes system integration with clients existing systems easier because of the effort of services-oriented architectures (SOA). Thus, clients save time in merging the system (Mcdonough, et al., 2008). Thus, the authors concluded the fifth proposition:

- *CRM as a service reduces the implementation time for clients.*

CRM system is not only used to enhance in sales and also used to assist and improve of organization's vision (Selander, 2008). Meanwhile, because the providers offer support for IT operating processes that are non-core business in clients' companies (Mcdonough, et al., 2008). Therefore, they do not worry about IT issues such as system error and new version update. Moreover, SaaS providers has the ownership of IT infrastructure and clients do not need to care about that. This helps clients more focusing on their core business and core competencies (Laplante, et al., 2008). Thus, the authors derived the sixth proposition:

- *CRM as a service assists clients in focusing more on their core-business.*

Data exchange between people and company could be changed by CRM system. For example, CRM system and Internet cooperation makes people can contact organization any time and information can be gain from CRM system more

convenient. (Hedman & Kalling, 2002) Meanwhile, SaaS makes clients easily access the application and to update data regardless the physical location. Clients only need to have Internet connection and web-browser in order to log on and use the application (Quist & Robertson, 2005). Furthermore, this feature makes staffs work remotely as possible such as work-from-home. Therefore, it is possible to save the traveling time to work. This allows staff to work without place and time constraint (Stimpson, 2008). Thus, the authors generated the seventh proposition:

- *CRM as a service provides more accessibility in CRM data updating regardless of where the clients are.*

CRM systems have the integration possibility with the other systems, such as ERP systems, SCM systems. Customer interaction points, such as telephone, email and a website are supported by CRM system (Hedman & Kalling, 2002) Meanwhile, provider get benefit from SaaS by saving maintenance costs (Liao & Tao, 2008) since they are able to handle all clients' need such as updating and customizing system from their site. Chou (2007) states the same idea that providers can upgrade and fix the system without meeting client individually. Furthermore, software upgrading is speeded up because software providers try to improve their competitiveness in the market (Liao & Tao, 2008). Providers can continuously update new version due to the fact that SaaS is offered to customers through a web-based platform. Therefore, providers can offer new functions to clients faster than because the new functions are delivered via internet. In contrast, providers have to send new software version as an application disk to all clients to update (Waters, 2005). Thus, the authors proposed the eighth proposition:

- *CRM as a service makes the software provider spending less time and costs in managing compatibility, upgrading versions of the software and supporting clients.*

In general, CRM system as a service is a CRM system delivered via internet-based to many customers. The ownership of CRM as a service belongs to the service providers who invest in the entire IT infrastructure such as server, network, database license and are responsible for system maintenance and upgrade from their locations. Therefore, clients do not need to spend money and time to implement such CRM system and do not bear any risk associated with software acquisition since it is the responsibility of system providers. Thus, CRM as a service enable clients to focus more on their business goals. Furthermore, CRM as a service is offered to clients as web-based form in order that they are able to access the system and update data from everywhere in the world through web-browsers which are connected to the Internet. Moreover, CRM as a service can response the difficulty of managing CRM system since organizational goal seems to change frequently (Ryals & Knox, 2001). It provides the customized system features such as changing languages. Also, CRM as a service using the concept of multi-tenant architecture, which enable clients access to be scaled with the number of users accompanying their real business developments and changes. Thus, clients have flexibility in controlling number of users for future business provisions (Trapp, 2007).

The analysis of integrating literature on SaaS and CRM suggest eight propositions on advantages of CRM as a service. These are summarized in Table 2.4 below

Table 2.4 The explanations of propositions	
Propositions	**Explanations**
Proposition 1	CRM as a service reduces large capital expenses for both IT infrastructure and unused-function costs for clients.
Proposition 2	CRM as a service is able to eliminate much of the software-acquisition risk for clients.
Proposition 3	CRM as a service allows clients more scalability in user expansion.
Proposition 4	CRM as a service makes CRM system to be easily customized.
Proposition 5	CRM as a service reduces the implementation time for clients.
Proposition 6	CRM as a service assists clients in focusing more on their core-business.
Proposition 7	CRM as a service provides more accessibility in CRM data updating regardless of clients' location.
Proposition 8	CRM as a service makes the software provider spending less time and costs in managing compatibility, upgrading versions of the software and supporting clients.

Chapter 3: Methods

This chapter describes the research purpose, research strategy, selection of company for collecting empirical data, interviews issue, data analysis, validity, reliability and ethic in this study, and the execution of the study. Furthermore, the choice made, the motivation of the choice and theory support behind the choice was also described.

As discussed in section 1.3, CRM as a service is still a new phenomenon and there is lack of previous researches focusing on this research topic. Therefore, there is a knowledge gap about advantages of CRM as a service from provider's view which serves as the research propose for this study.

3.1 Research approach

In this research, generic CRM system knowledge such as its main function, its purpose of use and main components were studied in order to illustrate the characteristics of CRM system. Besides, SaaS advantages were studied in depth from literature in order to gain a better understanding about advantages of SaaS. The authors believe qualitative research approach is the most appropriate method since broader and depth information regarding to research question can be collected through talking with people (Bryman, 2002 cited in Svensson & Wallén, 2006) and allow them to tell their experiences (Creswell, 2006). Furthermore, the authors think it is possible to gain more information regarding the study question while properly guiding CRM as a service provider reflects freely and the qualitative approach is able to do so.

3.2 Research strategy

After research approach has been identified, research strategy was also chosen for this study. The authors argue this study has similarities with the idea of case study research described by Eisenhardt (2007) stated that the strategy to deal with this building theory from cases and the study followed the constructing of case study.

> *"First, the researcher sketches the emergent theory in the introduction. Then, in the body of paper, write each proposition (implicitly or explicitly stated), and link it to the supporting empirical evidence for each construct and for the proposed relationship between the constructs. When the research is well done, the propositions will be consistent with most (or even all) of the cases because the researcher has effectively "pattern-matched" between theory and data. It is also crucial to write the underlying theoretical arguments that provide the logical link between the constructs within a proposition. These arguments can be drawn from case evidence..."*

> *Source: Eisenhardt (2007) pp.25-32*

This study used "pattern-matched" as a strategy to answer research question. Initially, the propositions are proposed from the literature review that mentioned the advantages of SaaS and CRM system knowledge. Next, they were connected and tested by the empirical data that collected from interviews. It is necessary to use the logical link between theoretical and actual data; therefore, the questionnaires for interview were

designed as the logical link with each proposition in order to match easily (Appendix 1). Afterwards, the propositions were presented as the advantages of CRM as a service

Figure 3.1 Research Method
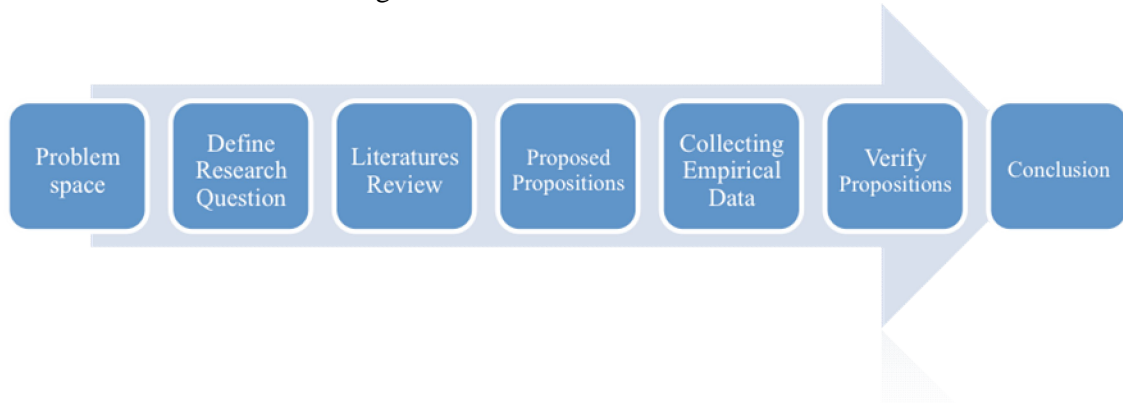
3.3 Data collection

After case study research strategy had been identified, the data collection approach needed to be specified. There are various methods for data collection such as interview. In addition, the interview is a conversation process and easier to gain broader and depth information. Furthermore, it is an important source providing case study information (Creswell, 2006). The interview was selected as the method for collect empirical data due to this study is to gain a better understanding about advantages of CRM as a service and the authors believe interview provided in deep and broad information regarding advantages of CRM as a service for this study. Furthermore, the empirical data were collected from seven experienced and knowledgeable interviewees from six companies.

3.3.1 Selection of the companies

Some SaaS providers were found during literature review regarding SaaS advantages. Other SaaS providers were found through searching SaaS provider from internet. Later on, further search and inquiry was to specify the CRM as a service provider due to not every SaaS provider offering CRM as a service. The target interview companies for this study were CRM as a service provider and there was no concern about its size. The reason there is no need to concern the company size is because the authors believe all providers regardless its size should have their view about advantages of CRM as a service. The objective of the selection was to make a broader range of interviews with CRM as a service providers.

In order to select suitable provider, the important criterion was that the software provider all at least offer CRM as a service until now or plan to offer CRM as a service in the near future. Therefore, this criterion should assure that the companies have the knowledge and experience to explain the advantages of CRM as a service and would provide good, comprehensive quality and professional information in empirical data collection for this study.

The interview companies were range from providing many kinds of SaaS to providing

CRM as a service only. Some were established for sometime already in the SaaS market while some are growing up companies. Moreover, one of the interview companies is the company offering CRM as a service from another company.

Meanwhile, some contacted SaaS provider companies, which do not offer CRM as a service, were not considered in the interview list, such as, E-conomic, Cention. Salesforce.com is one of the earliest company entered SaaS market with CRM as a service in 1999. Meanwhile, Minerva CRM is a company offering Oracle's CRM as a service. Furthermore, the other companies (Microsoft, Logica, CRM-A, 24SevenOffice) offer many kinds of software as a service, including CRM as a service. Initially, CenturioCRM was interview target, but it refused the interview request due to their time limitation for its core business focus.

3.3.2 Interviews

The semi-structured interview was performed in this study because the interviewer could keep the interview as open-ended style and plus conversational manner, in this case, a set of questions derived from case study research are used (Yin, 2003). Furthermore, interviewer took time (e.g, one hour) interview with interviewee.

In this research study, the interviews were carried out following the interview guide (Appendix 1). It is derived from the propositions of this research study in order to gain the interviewees' knowledge, experience and opinion about advantages of CRM as a service. In addition, the interviews have a few open-ended questions (Appendix 1, Question 12) and interviewee can express their opinion about this research.

A telephone interview provides the chance to gain good information source when interviewer has difficulty to access interviewee (Creswell, 2006). Telephone interviews could make interview cheaper and less time consuming because the researcher does not need to spend time and money on traveling (Bryman, 2002 cited in Svensson & Wallén, 2006). Telephone interview was used in this research, while personal interview was excluded due to the high cost of traveling, staying, and much traveling time consumption. However, the authors do not claim telephone interview is better than face-to-face interview in this study. At the same time, the following reasons from the authors show that the authors believe telephone interview is a good choice for this study:

Table 3.1 The reasons to use telephone Interview
1) Telephone interview could bring clear understanding of the interview questions to interviewees. In case, the interview guide (Appendix 1) and letter of authorization to interview (Appendix 3) were sent to interviewee before interview and some explanation about the questionnaires was discussed with interviewees via phone.
2) Telephone interview gives the possibility for interviewer to repeat, clarify the interview questions and carry further inquiry on interview questionnaires.
3) There is no concern that interviewee cannot answer all the questions due to whatever reasons, for example, one interviewee might quit the interview after half hour because he/she receives emergent call and has to leave, but the interview appointment duration was one hour. In this case, interviewers spend a lot of time and money to travel to interviewer's place and just gain little result.
4) The interview questionnaires are not about catching emotions, feelings from interview. Therefore, telephone interview was used and believed as a good choice.

The target interviewees were specified as a group of people who have experience or knowledge about CRM as a service and working with CRM as a service provider. Thus, the target group posed the information relevant to the research (Malhotra, 1996). In most case, one interviewee was chosen from each company and that interviewee represented the company's answer. Therefore, the interviewees should have good knowledge with CRM as a service and their function could be in various forms such as business consultant, salesperson, product marketing manager and commercial manager from CRM as a service provider. Interviewer called the interviewee, sent the same document (Appendix 3) regarding interviewer's interview purpose, research topic, scope, data confidentiality, data privacy and interview questionnaires (Appendix 1) to the interviewee and made interview appointments. Therefore, the interviewees understood perspective of what the interviewers were focusing on. The interviews were carried out in English and arranged around 1 hour for each interview. Furthermore, audio recorder was used in each interview to record the interview conversation and with written notes as additional checking for empirical data. The following table 3.2 lists the interviewees' name, function and interview company name to give reader a clearer overview about the interviewee and interview company information.

Table 3.2 Interviewee and company information		
Interviewees	**Function**	**Company**
Representative from CRM-A	Sales	CRM-A
Robert Svensson	Sales executive	24SevenOffice
Peter Moldrup	Commercial manager	Minerva CRM
Mads Fjord Larsen	CRM Business Consultant	Minerva CRM
Johan Zetterström	Vice president for Sales Nordic cooperation	Salesforce.com
Inger Westerback	CRM Organization consultant	Logica
Ida Ljungblom	Product Marketing Manager Microsoft CRM	Microsoft

3.4 Data analysis

A general data analysis procedure for qualitative researches and analytic strategies from Creswell (2006) were applied in this research. In order to receive the accurate data from interview for reliability improvement, interview conversation data were firstly transcribed from interview speech to written text. Each author transcribed the speech and checked with each other's written text to examine the understanding until both authors reached the same interpretation. Afterwards, the transcribed interview text with the interview questionnaires was sent back via email to each interviewee for verifying the transcribed interviewee text. The authors identified the transcribed text and selected the important relevant information. Later on, the non-related information was excluded and main relevant information stay as empirical data. This step associated with the selection and focus process in Miles & Huberman (1994).

Afterwards, the authors summarized the empirical data based on the previous step; consequently the empirical data was simplified. This step is accompanied with the simplifying, abstracting concept in Miles & Huberman (1994). Lastly, the authors categorized and put the empirical data into corresponding proposition and further test with theory about each proposition from literature review.

3.5 Validity

In order to improve the research internal validity, a table containing propositions, explanations and interview questions in relation to the propositions was used in the data analysis process in order to improve internal validity of research propositions. The example of this table is shown in Table 3.3. These propositions act as the backbone of interview questions and show the research result. In addition, all empirical data collected is transcribed. In order to further strengthen the internal validity, the authors return the transcribed material to the respondents for the verification of their answers. Therefore, they got opportunity to verify the transcribed data. This procedure is believed to enhance the creditability of this study and consequently further improve the internal validity.

Table 3.3 Proposition explanation and usage in interview (Example)		
Proposition	Explanation	Interview question based on proposition
Proposition 2	CRM as a service is able to eliminate much of the software-acquisition risk for clients	CRM as a service eliminates much of the risk surrounding software-acquired for clients? Does it promote CRM as a service instead of a product in software provider's view? What is your opinion about that? (Q5)

In order to achieve a considerably amount of external validity, seven interviews were conducted. The authors believed these interviews well-cover the problem area. However, the authors do not claim that the research result covers every possible advantages of CRM as a service. Since the research purpose is to gain a better understanding about advantages of CRM as a service, this research could show certain degree of generalization about advantages of CRM as a service.

3.6 Reliability

A good qualitative study can help people to gain better and clear understanding of a situation (Eisner, 1991, p. 58). In order to achieve good reliability, the interview questions were carefully designed to cover all propositions, which ensured that interview questionnaires were tightly related with the research. In addition, all interview companies offer CRM as a service and all selected interviewees have knowledge and experience with CRM as a service. Therefore, the authors believed interviewees could provide reliable answer on interview questionnaires. During the interviews, authors kept neutral during interview to allow interviewee express answer freely (Merriam, 1988). Furthermore, the key points of answers from interviewee were written down briefly as notes during the interview. This provided the possibility for interviewer to check the notes with the interviewee's answer from tape. Therefore, this increased the interview data accuracy. Later on, interview data were firstly

transcribed from interview speech to written text by both authors. Then each author checked written text with each other to exam personal understanding until both authors reached the same interpretation. Next, the transcribed interview text with the interview questionnaires was sent back via email to each interviewee for verifying. Finally, authors also believed the consistency of the finding if the study carried out with the same companies and interviewees.

3.7 Ethics

So as to progress good ethical quality in the research, each interviewee received a word document (Appendix 3) via email about issues including the research topic, research question, research scope, data confidentiality, privacy, personal identity, research outcome and the questionnaires (Appendix 1) before interview. Furthermore, interviewees were inquired whether they would like to join the interview without compulsion. In addition, Interviewees were given an indication of what would happen to the data, including its potential use in any reports or publications. In this research, authors believed that there should be no reason that might cause any physical or mental damage to interviewee since the research purpose is to gain a better understanding about advantages of CRM as a service. Moreover, authors carefully managed this study since it will be published and might be used by the other people later. Thus, there should not be any damage to interviewees and interview companies. Moreover, the transcribed interview data was sent back to interviewee to verify, and authors got interviewee's permission of using the data. In addition, interviewee knows the purpose of using the data and where it will be used. Thus, the empirical data used in this study should not harm any interviewee (Israel & Hay, 2006).

Interviewees were informed by telephone prior to the interview that they could keep silence if they do not want to discuss the question. Furthermore, it was also informed by telephone that interviewee could withdraw from the interview participation at any time without specifying a reason (Singer &Vinson, 2002). Interviewee's competence was taken into account in the research also. In the research, it concerns interviewee's experience and knowledge issues in CRM as a service (Singer & Vinson, 2002). It was not a problem about interviewee's competence in CRM as a service since their function requiring competence and experience in CRM as a service. Besides, trust between interviewee and interviewer was initially established from the interview opportunity inquiry and further enhanced by sending a document (Appendix 1 and 3) to ease interviewee's potential worry and maintain the trust.

Privacy, anonymity and confidentiality were considered as important ethic aspects in this research. The author strictly respected and followed interviewee's willing of showing its identity. During the transcription of the interviews, author ensured that there is no possibility revealing an individual interviewee and company identity if interviewee does not allow to be showed to the reader. Furthermore, author also assured there is no possibility that reader can find clue about participant's identity if interviewee does not allow it to be shown to readers. For example, author only showed the interviewee's function in this study and excluded their name and company name.

3.8 The execution of the study

The purpose of the study is to gain a better understanding about advantages of CRM as a service. Reviewing related with literature which regarding to CRM system and SaaS carried out the research study. Later on, semi-structured interviews with software providers' representatives were carried out to collect empirical data. The interview company representative's functions are in various forms, such as salesperson, CRM system consultant, CRM Business Consultant, product marketing manager, commercial manager, vice president for Sales Nordic cooperation, and service and development manager. All of those roles covered comprehensive aspects from company perspective. As a result, it made the research more valid and reliable. The empirical data was collected through the telephone interviews and transcribed into written text for propositions. Due to there are few researches and scientific documents within the specific research topic (CRM as a service), the propositions used in this research have been generated from existing literature about advantages of SaaS and integrated with CRM system knowledge. Since our study was carried out in qualitative way, thus proposition is the term used in this study instead of hypothesis. Empirical data in this study was to test the generated propositions with literature review to gain a better understanding about advantages of CRM as a service. Finally, eight propositions were tested for this study. Table 3.4 is listed in order to give reader a clearer overview about our research study structure. The table containing propositions, reference, explanation, the relative questionnaires, and transcribed interview data is shown in chapter 4.

Table 3.4 Research study structure (Extend from table 3.3)					
Propositions	**Explanations**	**Relative interview questions**	**Company 1**	**Company 2**	**Company x**
Proposition 1	Explanation	Question 4	**Answer**	**Answer**	**Answer**
Proposition 2	Explanation	Question 5	Answer	Answer	Answer
……………	…………..	……………	………..	…………	…………..
Proposition x	Explanation	Question x	Answer	Answer	Answer

Chapter 4: Empirical data & Analysis

During the research study, seven interviews were carried out with six CRM as a service provider companies and those companies' general information are described in this chapter.

4.1 Interview Companies

4.1.1 Salesforce.com

Salesforce.com was established in 1999 as a SaaS provider with focus on CRM as a service. Salesforce.com has a big share in on-demand customer relationship management (CRM) services market and delivers CRM system in different versions via a website. They offer CRM system for different level of use such as CRM system with basic functions for a few peoples use, professional edition provides more functions for group use, enterprise version provides integration and customization possibility to client and unlimited version aiming for enterprise use (provides more power to client, such as administrator right). Their customers are in different size and come from various industries in many countries. Their CRM solution has several function models, such as Service & Support function model, Marketing function model, and Analytics function model. (http://www.salesforce.com, 2009)

4.1.2 Logica

The company has 40,000 employees across 36 countries and provides business consulting, business process outsourcing, systems integration, and IT outsourcing services. Logica's business area covers many market segments – Energy and Utilities, Financial Services, IT industry, Logistic, Telecoms and Media and so on. Logica has expertise in designing and implementing CRM systems. Big software providers such as Microsoft, SAP are Logica's cooperator and the company can provide their cooperator's CRM as a service to customer. (http://www.logica.com, 2009)

4.1.3 24SevenOffice

24SevenOffice is a web based software systems provider, located in Oslo, Norway. Currently their customer is mainly in Scandinavia region. Their main products are web-based CRM system and ERP system. The company has customers from many industries and offers software system modules such as accounting, invoicing, email, project management and CRM. The client can choose specific system module according to their need (http://www.24sevenoffice.com, 2009)

4.1.4 MinervaCRM

Minerva CRM is a consultant company with ten years experience and primarily offers and assists clients with Oracle/Siebel CRM system (including CRM as a service and on-premise). Their business covers consulting, implementation, and information technology and experienced with Oracle/Siebel, CRM system service. Besides, the company provides business and CRM analysis, project management, data loads services. (http://www.minervacrm.com, 2009)

4.1.5 Microsoft (Business Division)

Microsoft provides many software products and its computer operating system is one of the famous products. The other product from Microsoft such as Microsoft office is used in many industries. Microsoft Business Division ("MBD") is one of Microsoft product divisions and offers Microsoft Office, such as word, power point and outlook. MBD also develops business and financial management software. Microsoft Dynamics is a subset of business software, which is a set of business tools including financial management tool, CRM tool, SCM tool, and so on. Dynamics CRM is a Customer Relationship Management software package and is a part of the Microsoft Dynamics. (http://www.microsoft.com/dynamics/crm/default.mspx, 2009)

4.1.6 CRM-A

The company is a software provider and offers CRM as a service. At the same time, the company has the possibility to offer other software systems. However, this provider does not wish to reveal its name to appear in this study.

4.2 Research data

Proposition 1 - CRM as a service reduces large capital expenses for both IT infrastructure and unused-function costs clients.

All respondents state this proposition is definitely an advantage of CRM as a service. "*Customers don't have any large capital expense at all actually if they adopt CRM as a service*" (R. Svensson, 24SevenOffice, April 21st 2009). The providers have responsibility to manage the whole IT infrastructure such as server, network, database and so on. Thus, customers do not have to invest in IT infrastructure. J. Zetterström (Salesforce.com) uses the magazine subscription as the example of providing CRM as a service that clients only pay for the capital cost, for example, they do not have to spend money in order to go to bookstore when they need to buy book. Instead, they just order it from websites. Furthermore, CRM as a service can reduce unused-function cost. In software on-premise, client does not get any compensation for unused functions since it has to pay a total price for all functions. On the contrary, client only needs to subscribe base on the number of user accounts it needs and pay according to functions (P. Moldrup, MinervaCRM, April 23st 2009). Thus, if clients adopt CRM as a service, cost structures will be changed. Therefore, as I. Ljungblom (Microsoft) said *" The costs are easy to budget."* It can help clients to manage the budget easily.

Proposition 1- CRM as a service reduces large capital expenses for both IT infrastructure and license costs for clients.

Propositions	Relative interview questions	CRM-A	24SevenOffice	MinervaCRM	Salesforce.com	Logica	Microsoft
Proposition 1	*CRM as a service reduces large upfront capital expense, infrastructure costs and unused-function costs for clients? Does it promote CRM as a service instead of a product in software provider's view? What is your opinion about that?*	This is definitely a benefit of CRM as a service. Because if they need to use software on-premise, they need to invest infrastructure and pay for unused function model.	If you buy a system as a product, you need to buy server, some hardware cost, probably a separated database, license and so on. You do not have any large capital expense at all actually if you adopt CRM as a service. It change cost from paying directly into pay per month. And there is no infrastructure cost. Moreover, it does not even need any network. You need to have only the computer with web browser and is able to access the Internet. And also the cost is cheaper than software on-premise because the latter need to have setting up cost. We charge depending on what module the customer use in using system in CRM as a service.	SaaS makes CRM system cheaper, faster and easier to get started with CRM. Furthermore, If you buy on-premise software, there is no payback on unused function. While, in CRM as a service, we charge customers from the number of users and function they need to use.	We provide the service like subscription, like subscribe to magazine or subscribe to telephone, so there is only operational cost because the clients do not need to buy anything. Compare that with software on-premise, they need to install software in their laptop, to assess the scale of infrastructure, and to buy more servers, hardware and database. Furthermore, they feel during the service and then they pay during the engage with us. While, of course the customer usually get what they are paying for and there is no in traditional software.	CRM as a service is very good for clients because they do not need to spend any IT cost and unused-function cost. They pay only for service they use.	Simplicity and the ability to grow in their IT environment without the need to involve large initial investment is made possible with hosting. Full control of the licensing of the service/product - your hosting provider is licensed - you will not have to handle the license administration. The costs are easy to budget.
Summary		**Agree with proposition**	**Agree with proposition**	**Agree with proposition**	**Agree with proposition**	**Agree with proposition**	**Agree with proposition**

Proposition 2 - CRM as a service is able to eliminate much of the software-acquisition risk for clients.

"If they do not like it, they just inform us know and then we stop sending invoice to them. And there is no specific contract time." (R. Svensson, 24SevenOffice, April 21st 2009). Furthermore, R.Svensson pointed out clients can take one or two users to try the demo for a while and decide whether to use CRM as a service in their company. In addition, CRM as a service is easy as people browse website in Internet. Therefore, it can reduce risk of company that does not have a lot of knowledge in using this application. It seems as they play Internet or order book from Amazon. It is very simple way for them to do it. (J. Zetterström, Salesforce.com, April 23rd 2009). Moreover, due to CRM as a service is delivered through a web-based platform; clients do not need any investment in order to test the system because the system requires only web-browser and connection to the Internet. Therefore, it can reduce unpredictable cost from testing process (I. Ljungblom, Microsoft, May 5th 2009). Furthermore, I. Westerback (Logica) said, " *If they are not satisfied with us, there are so many Microsoft dynamic CRM partners. They can take this go to someone else, which means there is no cost risk in switch software and provider* ". That means company does not worry about switching cost when they are not satisfied with service. They can change to another provider easily. All respondents agree with this advantage.

Proposition 2 - CRM as a service is able to eliminate much of the software-acquisition risk for clients.

Propositions	Relative interview questions	CRM-A	24SevenOffice	MinervaCRM	Salesforce.com	Logica	Microsoft
Proposition 2	*CRM as a service eliminates much of the risk surrounding software-acquisition for clients? Does it promote CRM as a service instead of a product in software provider's view? What is your opinion about that?*	CRM as a service can help customer reduce risk when they are in process of software purchase. We provide the system via Internet. Client can test the system without any investment.	If they are not sure whether they should use CRM as a service, we provide the demo to them for testing it before ordering. And they can take one or two users to try it for one or two months until they feel confident that the whole company should use. CRM as a service does not cost much to provide the trial version. There is no installation cost, few start-up costs and little fee for training. Furthermore, we never say that you have to become a customer and stay as a customer for 12 months or 24 months or whatever, clients can use our service as long as they need. If they do not like it, they just inform us know and then we stop send invoice to them. And there is no specific contract time.	Customers have risk for investment in on-premise because they have invested some costs for testing system while SaaS can reduce it. We can give test version to customer via website so they do not have to do anything. Just have only the internet.	CRM as a service is much easier to use CRM system from our aspect. It is very easy to learn. It seems as how do people ordering in amazon.com. They can just do it by themselves even though they do not have huge knowledge to doing that. Therefore, it can reduce software-acquired risk for company that has little knowledge about CRM system..If the company doe not feel well in operating the system they can just cancel the service.	If they are not satisfied with us, there are so many Microsoft dynamic CRM partners. They can take this go to someone else, which means there is no cost risk in switching software and provider.	Because CRM as a service is delivered in web form and every process run on provider's site, clients do not have to invest any cost in order to test the system. They can test demo CRM as a service easier than on-premise since they have only computer connected Internet and then they can test it immediately after we send username, password and URL to them.
Summary		Agree with this proposition	Agree with proposition	Agree with proposition	Agree with proposition	Agree with proposition	Agree with proposition

Proposition 3 - CRM as a service allows clients more scalability in user expansion.

CRM-A company informed that they do not believe CRM as a service can give clients more scalability in user expansion bases on an argument that clients can still expand even they have software on-premise. It is not outstanding advantage of CRM as a service. However, other respondents agree with this advantage. Ida Ljungblom at Microsoft mentioned that this advantage of CRM as a service derived from the multi-tenant architecture designed as part of CRM as a service, which allows clients to adjust numbers of users easily. Since clients can adjust the number of users accompanying the business changes (P. Moldrup, Minerva CRM, April 23rd 2009). In addition, they do not have to buy more servers, hardware and database, which seems as they work double-time for both database and infrastructure upon user expansion (J. Zetterström, Salesforce.com, April 23rd 2009).

Proposition 3- CRM as a service allows clients more scalability in user expansion.

Propositions	Relative interview questions	CRM-A	24SevenOffice	MinervaCRM	Salesforce.com	Logica	Microsoft
Proposition 3	CRM as a service gives clients more scalability in user expanding? Does it promote CRM as a service instead of a product in software provider's view? What is your opinion about that?	The provider does not believe that CRM as a service give customer more scalability in user expanding because clients can expand even they have software as on-premise.	Our business model allows anything from one user to thousand users depends on customer's company size. For example, if clients decide to use CRM as a service for ten users, it is always a minimum cost for CRM as a service instead of using CRM on-premise. When clients need to increase or decrease the number of users, it is flexible if we provide it as a service. There is much more flexibility in terms of web-based service as supposed to install client solution.	CRM as a service is able to afford the scalability into the solution. Scalability is cheaper and faster. There is no need to invest in new infrastructure. Scale down is faster as well. Moreover, it is flexible for business rather than software on-premise. For instance, you also need to change the number of user or etc. in company when your business changes.	About scalability, we have invested more than three million dollar in our infrastructure so of course it comes to having the scalability. Thus, it does not matter if you are one use or if you have ten thousand users, we can set provision and serve that on the database so clients can compare that to the traditional software. Our clients can expand from ten users up to ten thousand users in minutes. We just supply username and password as well as login detail to clients and then they can scale instantly. However, if they use the software delivered in traditional way, it is difficult to expand. They have to spend their time and money every time when they change. It seems as they do double the database and infrastructure, so they actually will have more workload.	It is easy for customers to add more users on both as a service and as on-premise. Dynamics CRM use license based on the name on user. But if clients have a call center, they can buy license by terminal instead when they consider expanding organization.	Clients can expand the CRM system in the same way that your business grows. The solution can be scaled in line with how your business is changing. The scalability is one of the biggest advantages with hosted CRM. They just call hosting provider and add more users. On the other hand, clients can do by themselves because CRM as a service is the multi-tenant architecture. Therefore, they can access into the system and scale the number of user instantly.
Summary		Disagree with this proposition	Agree with proposition	Agree with proposition	Agree with proposition	Agree with proposition	Agree with proposition

Proposition 4 - CRM as a service makes CRM system to be easily customized.

Almost all respondents do not agree that CRM as a service is easy to be customized because the service form is less customizable than on-premise. A metaphor extracted from the empirical data is that using CRM as a service is like renting house. Customers can change only some parts based on the house frame in contrast to CRM on-premise, which is like building own house. If you build your own house, you can customize all the parts. For example, you can build the wall wherever, if you do not like it, you can destroy it (CRM-A, Apr 17th 2009). While Robert Svensson informed they can adapt CRM as a service individually in some functions within the same format. Thus, if clients need specific functions, CRM as a service cannot be the appropriate solution for them. It is not the advantage of CRM as a service. Also, this is not for Microsoft to offer CRM as a service. The system works exactly the same way. It is no problem when they would like to customize for on-premise because they can customize only in some function (I. Ljungblom, Microsoft, May 5th 2009). However, Johan Zetterström showed that their company offering the tool for system customization. Thus, clients can edit applications in some parts of the system.

Proposition 4 - CRM as a service makes CRM system to be easily customized.

Propositions	Relative interview questions	CRM-A	24SevenOffice	MinervaCRM	Salesforce.com	Logica	Microsoft
Proposition 4	*CRM as a service makes CRM system to be easily customized? Does it promote CRM as a service instead of a product in software provider point of view? What is our opinion about that?*	It is like renting house instead of building house. Customers can renting house and furnish the way their like. While if they build the house, they can do it exactly the way they want. If they rent the house, it is same as a framework for customers that they have to follow it; customers have a strict guideline of what they can customize and what they cannot. If they build house, they can destroy one wall and build something completely different and they can do whatever they need.	We can do a lot of individual adaptations, but they all come in the same format. From technical point of view, although there are any additions requirements from specific customer, we can afford to do that. But technically, our solution becomes available to everyone so if it is very specific needs or very unusual needs for a specific clients' requirement, we are not perhaps the right provider or vendor because we do only the configurable standard solution. There is no special solution for cloud computing so customers have to go to a software-company and pay them a lot of money to buy the hour to develop your exact specification.	The flexibility of CRM as a service is still based on the concept of one size fits all. Some business objects can be customized and some process automation is possible but only within the limits defined by the provider. Therefore, it is difficult to say the flexibility of CRM as a service is much higher than CRM as on-premise. So I do not agree with this point.	With our tool, it is easier to customize for customers expectation than tradition software. It is easy for customers to save their money and their time.	It does not matter if you choose hosted solution or buy a product. With configuration and customization it support a company's individual processes, both hosted or as a product. But with hosted, it has some limitation in customize because it's developed in same platform for all users.	The system works exactly the same way. It is no problem when they would like to customizing in on-premise. But Dynamic CRM, they can customize only in some functions.
Summary		**Disagree with proposition**	**Disagree with proposition**	**Disagree with proposition**	**Agree with proposition**	**Disagree with proposition**	**Disagree with proposition**

Proposition 5 – CRM as a service reduces the implementation time for clients.

All respondents pointed out that CRM as a service is easy and quick to implement for clients because they do not have to spend time on configuration such as install system and setup hardware. This response to the client's need faster than CRM on-premise (CRM-A, Apr 17th 2009). While, Johan Zetterström (Salesforce.com) said that "*CRM as a service implementation is 50 to 60 percent faster than on-premise*". CRM as a service requires only web-browser and Internet in order to operate with system. While for CRM on-premise, clients need to plan the implementation time and that takes time at least one month absolutely in order to configure IT infrastructure (P. Moldrup, Minerva CRM, April 23rd 2009). Furthermore, the process of implementation might take as short time as half a day. Clients just inform provider their personal information, such as name and the function they need. Afterwards, provider can configure the system at once and afford to them as fast as possible (R. Svensson, 24SevenOffice, April 21st 2009).

Proposition 5 – CRM as a service reduces the implementation time for clients.

Propositions	Relative interview questions	CRM-A	24SevenOffice	MinervaCRM	Salesforce.com	Logica	Microsoft
Proposition 5	*CRM as a service reduce CRM system implementation time? Does it promote CRM as a service instead of a product in software provider point of view? What is your opinion about that?*	Easy and quick to implement..Further more, it responses to client's need faster than CRM on-premise. Although it depends on how much function clients need to customize, it just take time at most two weeks.	The implementation time is very short for CRM as a service. Although it is difficult to say how much time it will take, but from technical point of view, we might do that in half-day. When we receive the information such as user's name about clients, we can configure the system immediately and deliver to them as soon as possible.	The biggest factor is that compare to on-premise where you have capability of doing where you start from the blank paper. When you do a CRM on demand, you have all the processes embedded, and then you focus on the 5% you need to change. If you take CRM as a service, you get some of all expert experience, that is why it is so much faster. While CRM on-premise, clients need to plan the implementation time and cost that takes longer than one month absolutely because they have to set up server, to test system and so on.	Implementation time is dependent on customers. It takes time less than a month or rarely a month but on-premise, customers have to spend time at least 12 months or longer. So CRM as a service deployment is 50 to 60 % faster than on-premise.	It consumes short time for clients to implement Microsoft Dynamics CRM because it is delivered as web-based. Therefore, they do not need to spend time for installing application and configuring application.	CRM as a service will help clients get up and running quickly because we are responsible for taking care all of IT infrastructure.
Summary		**Agree with this proposition**	**Agree with this proposition**	**Agree with this proposition**	**Agree with this proposition**	**Agree with this proposition**	**Agree with this proposition**

Proposition 6 - CRM as a service assists clients in focusing more on their core-business.

All of respondents agree with this advantage. Because CRM as a service providers are responsible for IT operations of the system, it supports the client's companies by enable them to concentrate more on their core business (I. Ljungblom, Microsoft, May 5th 2009). Clients receive hosted software services which can be directly access through a secure connection thus they do not have to worry about IT issue. Provider is helping with the configuration (I. Westerback, Logica, April 23rd 2009). This could be considered as a huge benefit for any clients (P. Moldrup, Minerva CRM, April 23rd 2009). Furthermore, company normally would like to reduce unnecessary costs. While Robert Svensson states some people might feel negative about the ownership of system because they do not assure whether provider will keep their data with security. However, he believed that this problem will be disappeared because they will be accustomed to use this kind of system. Along with people can focus on their business without concerning about IT. Whereas, Johan Zetterström said that Salesforce.com set a goal to increase type of software as a service into all area of client's company. He determined that it would be the great offering to get competitive advantages because all are delivered in the same platform. Thus, clients do their work only for core-business.

Preposition 6 - CRM as a service assists clients in focusing more on their core-business.

Propositions	Relative interview questions	CRM-A	24SevenOffice	MinervaCRM	Salesforce.com	Logica	Microsoft
Proposition 6	*CRM as a service might make the CRM customer company rely on service provider for non-core operating processes support (Focus more on their core business)? Does it promote CRM as a service instead of a product in software vendor point of view? What is your opinion about that?*	Because of the CRM as a service characteristic, it is able to reduce costs. The clients can use this resource to invest more on their core business.	Yes, clients need to rely on service provider. Some people may feel a little bit negative about that because they do not know they can trust it or trust us. But I think it will be disappearing because people actually ready to take that risk. And use this benefit to focus more on their core-business. We together with our colleagues in the business are improving constantly that the higher level of security and reliability than what locally installed application would offer normally.	Receiving hosted software services is a huge benefit for any company because Hardware is expensive. Clients can save cost from this investment and concentrate on their business.	We are cloud-based company. It could potential start using for core information and our goal is to expanding it into any area of company and we deliver service to our customer and they trust us. And they will move on and put other application in our platform. We think that great offering to customers. They can focus more on their core-business.	I think that if you have a hosted solution, of course the customer has to rely more on the provider more than if they bought the program themselves. But, we are helping with the configuration and stuff like that. It's easy for them also. So they do not have to spend time or cost to configure the system. They can do more work for their core-business.	The Microsoft Dynamics CRM provider take care all IT system including investing in hardware which is very expensive. Instead, clients pay for this investment, they can use this money for their core business. Focus on your core business and let an external CRM hosting provider assume responsibility for IT operations of the system.
Summary		**Agree with this proposition**	**Agree with this proposition**	**Agree with this proposition**	**Agree with this proposition**	**Agree with this proposition**	**Agree with this proposition**

Proposition 7 - CRM as a service provides more accessibility in CRM data updating regardless clients' location.

Because CRM as a service is delivered through web-based platform, clients require only web browser and Internet to use the system. It is not important where clients are in the world (J. Zetterström, Salesforce.com, April 23rd 2009). Therefore, it is easy for customer to update their data (P. Moldrup, Minerva CRM, April 23rd 2009). With CRM as a service, clients will reach Microsoft Dynamics CRM via the Internet. Therefore, it is easy for clients to login and use system. In some case, staffs need to update significance data as fast as they can. The feature of CRM as a service can solve this problem because they can logon immediately from their place (I.Ljungblom, Microsoft, May 5th 2009). All respondents have the same opinion with this advantage.

Proposition 7 -CRM as a service provides more accessibility in CRM data updating regardless clients' location.

Propositions	Relative interview questions	CRM-A	24SevenOffice	MinervaCRM	Salesforce.com	Logica	Microsoft
Proposition 7	*CRM as a service might provide more accessibility, flexibility in CRM data update regardless clients' location? Does it promote CRM as a service instead of a product in software vendor point of view? What is your opinion about that?*	Absolutely yes because of the characteristics of SaaS that we offer the system for clients as website.	Yes, this definitely promotes software as a service. It's one of the driving forces. Accessibility. As I said we provide CRM system via Internet and webpage so customer can login from where they are.	Our solution provides as web application for users therefore it is easy to update the data from customer point of view.	Customers need to access Salesforce.com by web browser and Internet, iphone or blackberry. It can connect to Saleforce. So it is not important where you are in the world. And it is huge benefit because they do not need to have software installed. Comparing with on-promise product, if we provide as a service, it is more accessibility and flexibility.	This is standard advantage of Dynamics CRM because we provide it as web-based. Customers can login and use system from everywhere.	Because Microsoft Dynamics CRM offer to clients via Internet, it is easy for user to log-in and to use the system. They can operate from anywhere is the world. So, it is more flexible than CRM on-premise, which clients can use only in their site. Also, it is benefit for some urgent case that employees have to edit and to update CRM data as soon as they can. They can logon from their place and operate those actions immediately.
Summary		**Agree with this proposition**	**Agree with this proposition**	**Agree with this proposition**	**Agree with this proposition**	**Agree with this proposition**	**Agree with this proposition**

Proposition 8 - CRM as a service makes the software provider spending less time and costs in managing compatibility, upgrading versions of the software and supporting clients.

All respondents claimed their responsibility for managing compatibility and upgrade features in their service so it is easy to update system and support clients. CRM-A company and Peter Moldrup (MinervaCRM) pointed out that CRM as a service makes their work easier because they do not have to go to client's site, furthermore, they can upgrade anything in system all the time. Therefore, it can reduce both cost and time in upgrading software application. However, Peter Moldrup (MinervaCRM) mentioned that sometimes they still have to go to client's location if some serious problems cannot be solved by remote access from their location or clients need to get the common opinion about how to interact with the system when the problems occur. In addition, there is no question about the compatibility between versions because we simply offer just one version, which contains several modules, and same version for all users (R. Svensson, 24SevenOffice, April 21st 2009). Therefore, it can reduce both cost and time to operate those processes. Furthermore, CRM system can be updated more often as a service than on-premise. It is normally upgraded three times per year while on-premise actually improves once per two years (J. Zetterström, Salesforce.com, April 23rd 2009). Besides, Inger Westerback stated that CRM as a service is built in layer, therefore, there is no problem when they update the system because it does not affect existing application including data and configuration.

Proposition 8 - CRM as a service makes the software provider spending less time and cost in managing compatibility, upgrading versions of the software and supporting clients.

Propositions	Relative interview questions	CRM-A	24SevenOffice	MinervaCRM	Salesforce.com	Logica	Microsoft
Proposition 8	*CRM as a service helps the software provider to spend less time and cost managing compatibility, upgrading across several versions of the software and supporting customers? Does it promote CRM as a service instead of a product in software provider point of view? What is your opinion about that?*	The customers do not have to worry about the managing, updating system and so on because we handles it automatically. It is easy for us to do that because we do not have to spend cost and time in order to go to clients' site.	Our business provides only one version of the software but we upgrade and add new feature constantly. We did not release software version as 1.1, 1.3 or 5.0.5 like most software providers do. There is no question compatibility between versions because simply there is not any different version. And of course that is also one of the driving forces behind software as a service. CRM as a service can reduce our cost because we do not need to spend time managing compatibility and handling different version. Furthermore, of course CRM as a service is easy to support customer because we physically sit on the hardware and we host applications by ourselves. So we do not need to travel around the world to do anything so the total cost of ownership is cheaper.	Our company has just one version and upgrades it so it leads the software upgrading, compatibility much easier. Moreover, CRM as a service leads us to remote easily the server that we can handle error things immediately from wherever we are. From technical view, we do not need to send consultant to customer because when users said, "We have technical problem", technical people can solve it by remote from their office or wherever they can connect Internet. But clients sometimes think the problem cannot solve by remote method. In that case, we might need to go to the customer and discuss with them. We need to consider the business process of customers and we have to send business and IT people to customer and explain why this problem happens and it is not possible to fix it.	We can innovate and add new features including fix error quicker than on-premise because we host everything from our site. Furthermore, it is easy for us to upgrade. Normally we upgrade three times per year in whole version while CRM on-premise actually update every second year. If we need to upgrade or change anything in system, we don't need to go to customer. we can do from our desktop. Moreover, we run it as a service so we will know if anything is wrong. It's advantage of service.	Upgrade of service packs in Microsoft Dynamics CRM is easy for provider. We just install service pack that Microsoft provides for us. The CRM as a service is built in layers, which means that when upgrading it does not affect the data or configuration. My opinion is that this is the best way to do it. Technicians can work from a remote connection-solving problem. If there is a bug in developed code or customization, we can export a customer's whole implementation, do the correction in our environment and then import it back to the customer.	We maintain everything from our site. It means we can operate such as security update, backups and so on in 24 hours per day and 7 days per week from our site. So we can spend less time and cost.
Summary		**Agree with this proposition**	**Agree with this proposition**	**Agree with this proposition**	**Agree with this proposition**	**Agree with this proposition**	**Agree with this proposition**

4.3 Testing propositions

Proposition 1 - CRM as a service reduces large capital expense for both IT infrastructure and unused-function cost for clients.

The fact that all companies notified this advantage is definitely an advantage of CRM as a service corresponds to SaaS features from literature. Clients do not have to spend large capital expense on IT infrastructure such as server, network tools because SaaS providers are responsible to spend these cost instead. Thus, clients pay only operational cost and it is less than capital expense of IT. Furthermore, Anerousis and Mohindra (2006) state SaaS providers invoice their customers per user per month because providers do not charge for a single up-front cost or license for each terminal in CRM as a service. Clients are charged only by the function they use and the number of users instead. Therefore, it can eliminate unused-function fee that is supported by the empirical data. It indicated CRM as a service provider invoice following the actual number of users. While, for CRM on-premise, clients cannot gain any return from unused-function model because they have to pay a whole price for all functions. It is the same as Bennett, et al. (2000) argue clients would be able to eliminate the unnecessary expenses, which might be the result of unused function occurring in on-premise. Therefore, this proposition is tested as an advantage of CRM as a service.

Proposition 2 - CRM as a service is able to eliminate much of the software-acquisition risk for clients.

CRM as a service is easier for clients to test the system than on-premise because it is delivered through web-based platform and no charge for testing the system. It means the system required only web browser and Internet connection for testing the system; therefore, clients do not have any risk about waste from testing system. All interviewees confirmed this point view. In addition, when clients use CRM on-premise, they have to pay full license fee at the first-time installation or to use the system until contract expired. Therefore, it is high risk for them because they cannot assure whether the system will work as they anticipate. While, CRM as a service can reduce the risk after software adoption since provider is responsible to fix and solve problem. If provider does not repair it, clients can cancel contract all the time and change to others. Therefore, clients secure in the level that at least if they do not receive good service, they can cancel the contract or stop using service at any point in time. This is incompliance with the advantage of SaaS that clients can cancel contract during entire time. In addition, they do not have to worry about IT investment when they abandon CRM as a service (Anerousis & Mohindra, 2006). Due to these reasons, the authors prove this proposition as an advantage of CRM as a service.

Proposition 3 - CRM as a service allows clients more scalability in user expansion.

According to literature (cf. Chapter 2), it showed that SaaS could adjust scale of users easily because the system is developed in the multi-tenant architecture. As claimed by Kaplan (2007), scalability is significant for SaaS because all clients share the same application. This is one of the reasons for its development in a multi-tenant architecture. It allows clients to scale the number of users at once (Chou, 2007). Almost all interviewees confirmed this proposition is an advantage of CRM as a service. Furthermore, it can imply that the clients would be able to expand the number of users who use the system based on the business development. It is coincided with the interpretation of empirical data. Saying that CRM as a service can help customer to adjust the scale of users easier than on-premise. CRM as a service contributes to more flexible for businesses because it is delivered in forms of web-based service and instead of local installation. Providers can scale around within minute after customers request. Meanwhile, if clients use CRM on-premise, they have to spend more cost and time to setting up the system for new user. Therefore, the process of user expansion in CRM as a service is faster than on-premise. Although an interviewee argue that the software on-premise can also expand user scalability, it still consumes more time in setting up or buying the new licenses for new users. From this consideration, we argue that the scalability is an advantage of CRM as a service. It is easier and faster to response client's need in expanding the number of users than software on-premise although the latter one can expand the scale as well.

Proposition 4 - CRM as a service makes CRM system to be easily customized.

Most providers determine the customization is not an advantage of CRM as a service because half of providers in this study delivered one version of CRM as a service to all clients. As a result, it could not be adapted for each customer. However, respondent argues that when using CRM as a service, clients can still customize the system. As Anerousis & Mohindra (2006) state the main SaaS characteristic referred is about offering software system through a standard and with possible customized way to client. Although provider offers CRM tool for modify the application, customization guideline is more rigid and less available. Language setting is an example of customization feature available on CRM as a service. While, CRM on-premise could be customized and developed follow customer's requirement. Thus clients, who need to have specific application, are not suitable to select CRM as a service to be their solution. The respondent's conditions are disputed by Gold, et al. (2004) argument that service-oriented software is the ease of making changes. It supports this proposition. This change is much easier than software on-premise, because clients can customize the application within scope of functions in CRM tool, which providers afford (Weil, 2007). From above testing, even though there is some argument about possible customization, the customization is very limited and most interviewees

disagree with this proposition. Thus, this proposition is not an advantage of CRM as a service.

Proposition 5 – CRM as a service reduces the implementation time for clients.

As shown by the study all respondents correspond with the SaaS advantages that CRM as a service can reduce the implementation time. Meanwhile, Waters (2005) argues about all of processing in system are running at provider's IT infrastructure. Also, SaaS is able to save time in setting up both hardware and software. Therefore, it can response client's need faster than adopting CRM on-premise since CRM as a service is hosted by provider and clients need only web browser and Internet to use the system. They do not have to waste time for setting any hardware or installing software. As Robert Svensson from 24SevenOffice said, it takes only half day to implement CRM as a service. In contrast, clients have to setup and configure CRM on-premise in their location, which requires at least one month implementing the system. In conclusion, the authors consider this proposition as an advantage of CRM as a service.

Proposition 6 - CRM as a service assists clients in focusing more on their core-business.

All respondents agree this proposition is an advantage of CRM as a service. As the advantage of SaaS, clients are not anxious about IT issues such as IT management in organization because the providers are the owner of whole IT infrastructure (Mcdonough, et al., 2008). It is associated with the respondents' opinion that mentioned this issue is considered as a benefit for any clients due to they enable client's companies to concentrate more on their core business and core competencies. Furthermore, in order to focus more on their business, the client companies normally need to reduce unnecessary costs or time from non-primary process, instead, use this asset to subsidize their core-business. Eventually, the authors believe this proposition as an advantage of CRM as a service.

Proposition 7 - CRM as a service provides more accessibility in CRM data updating regardless clients' location.

All respondents state that SaaS is more accessible and flexible rather than on-premise because CRM as a service is delivered through web-based. It is easy for company staffs to login and use system. They do not have to be concerned that they have to go to office in urgent case that need to edit CRM data because they can work from some place where connecting the Internet. It is correspondence with the characteristic of SaaS allowing clients access the system via the Internet (Quist & Robertson, 2005). Finally, the authors confirm this proposition as an advantage of CRM as a service.

Proposition 8 - CRM as a service makes the software provider spending less time and costs in managing compatibility, upgrading versions of the software and supporting clients.

All respondents' conditions agree with Weil (2007) argument that the advantage of CRM as a service from provider's view is that they spend less time and cost to manage software compatibility than software on-premise. Since half of interview companies in this study deliver only one version of CRM as a service to their clients, there is no question about the compatibility between versions. In upgrading software version, it is easy for provider to update the system such as adding features continuously, because they provide only one version and maintain the application that is physically installed and running at their site. Meanwhile, Chou (2007) pointed out providers are able to receive this positive effect because application is installed and upgraded from their site. Therefore, they can do all technical work (system compatibility and upgrading versions of the software) effectively and continually, that is better than CRM on-premise, which is actually updated once every two years. Ultimately, the authors test this proposition as an advantage of CRM as a service.

Table 4.1 The result of testing propositions		
Propositions	**Explanations**	**Testing result**
Proposition 1	CRM as a service reduces large capital expenses for both IT infrastructure and unused-function costs for clients.	Advantage
Proposition 2	CRM as a service is able to eliminate much of the software-acquisition risk for clients.	Advantage
Proposition 3	CRM as a service allows clients more scalability in user expansion.	Advantage
Proposition 4	CRM as a service makes CRM system to be easily customized.	------------
Proposition 5	CRM as a service reduces the implementation time for clients.	Advantage
Proposition 6	CRM as a service assists clients in focusing more on their core-business.	Advantage
Proposition 7	CRM as a service provides more accessibility in CRM data updating regardless of clients' location.	Advantage
Proposition 8	CRM as a service makes the software provider spending less time and costs in managing compatibility, upgrading versions of the software and supporting clients.	Advantage

Chapter 5: Conclusion & Discussion

In this chapter the research study is summarized, overall result is shown, the research purpose and question handling is described in general, research contribution of this study is concluded, discussion about this research is mentioned and further research is inspirited.

5.1 Summary of the research

The purpose of this study is to gain a better understanding about advantages of CRM as a service, which was firstly carried out by summarizing from literature related with two areas: Customer Relation Management and Software as a service. The advantages of CRM as a service are tested through collecting empirical data from the real world. This means that the authors gathered them from interviews with existing providers, which offer CRM as a service to clients. This empirical data is accumulated from six providers: 24SevenOffice, MinervaCRM, Salesforce.com, Logica, Microsoft and CRM-A. And they demonstrate either support or deny in the propositions that were integrated from literature review of CRM system and SaaS. Therefore, the advantages of CRM as a service that have been encapsulated through this study are:

Advantage 1: CRM as a service reduces large capital expenses for both IT infrastructure and unused-function costs for clients.

Advantage 2: CRM as a service is able to eliminate much of the software-acquisition risk for clients.

Advantage 3: CRM as a service allows clients more scalability in user expansion.

Advantage 5: CRM as a service reduces the implementation time for clients.

Advantage 6: CRM as a service assists clients in focusing more on their core-business.

Advantage 7: CRM as a service provides more accessibility in CRM data updating regardless clients' location.

Advantage 8: CRM as a service makes the software provider spending less time and costs in managing compatibility, upgrading versions of the software and supporting clients.

Although the research presents seven advantages, there is one proposition that cannot be proven that it is the advantage of CRM as a service from this study.

- *CRM as a service makes CRM system to be easily customized.*

It is not the advantage of CRM as a service because CRM on-premise can be modified the feature of system more detailed than CRM as a service (cf. Section 4.3).

5.2 Overall results

The overall result is successful by proving the conditions from the real circumstance. The result can answer the research question by the seven propositions tested regarding

advantages of CRM as a service. However, as the study results showed, not every proposition is advantage of CRM as a service. At the same time, the authors do not claim the seven tested propositions in this study cover all advantages of CRM as a service from providers' view

Although the study result was based on the empirical data from CRM as a service providers only, it might not reflect that all CRM as a service provider will agree with each proposition. It also means not every proposition in this study is seemed as an advantage of CRM as a service. In this study, all interviewees agree that proposition 1, 2, 5,6,7,8 are advantages of CRM as a service. From this situation, the authors conclude those propositions are confirmed CRM as a service advantages. Only one interviewee denied proposition 3 as an advantage of CRM as a service and the reason for that is discussable since the proposition lead the question a bit bias on " more scalability ". Furthermore, five of six respondents disagreed proposition 4 is an advantage of CRM as a service, only one agreed on that. The reason caused this situation might be from the technology competence in CRM system customization of different company, as the empirical data shows that company has special technical tool for doing CRM system customization.

Furthermore, in these seven tested propositions, there are six propositions seem as advantages for clients and there is one seems as the advantage for providers. Therefore, the result of this study can illustrate does not focus only the advantages of CRM as a service for customers but also for providers. Furthermore, the authors emphasize again since this study focus is only about the advantages of CRM as a service. Thus, the study result does not contain anything about disadvantages of CRM as a service.

5.3 Handling of the purpose and research question

In order to achieve this study purpose to gain a better understanding about advantages of CRM as a service, qualitative research approach was identified and relevant literature about CRM systems and SaaS were reviewed. Initially, the literature presents the advantages of SaaS. Consequently, existing theories were concluded and generated based on literature. After analyzing this study, case study research strategy was specified and interviews were carried out to gather empirical data in order to test eight propositions. During the empirical data analysis, six propositions were confirmed, one proposition was slightly denied and most respondents denied proposition 4 as an advantage of CRM as a service. Furthermore, there might be any interrelation between these propositions and this study did not aim to clarify all of potential and interrelations. In addition, the researchers had to say that there is no new finding from all interviews. This situation may be caused by many reasons. For example, the interview company selection issue for example, if the authors interview the CRM as a service provider in China, they might say one of the advantages of CRM as a service is the reduction of CRM system illegal copies. However, as this study purpose stated that the study is trying to gain a better understanding about the advantages of CRM as a service. Furthermore, as the researchers stated before, this study might not cover all the advantages of CRM as a service. Therefore, the authors think this study purpose was achieved.

In order to answer the research question (What is the providers' view of advantages of

CRM as a service?), eight propositions regarding providers' reasons for offering CRM as a service advantages were integrated based on literature about CRM system and SaaS advantages. Furthermore, researchers believe research question were answered by the result of all propositions tested by empirical data. Finally, the researchers do not claim this study covers all the advantages CRM as a service and the study purpose was not identified as that also.

In order to answer the investigation questions, literature about SaaS was used to answer investigation question one. Empirical data from interview was used to answer investigation question two. Furthermore, literature about SaaS and empirical data from interview both answered investigation question three.

5.4 Research contribution

The whole study can be mainly divided into three parts as research contribution pieces. The first contribution piece is about theory conclusion of CRM system and SaaS knowledge from literature review. Even though SaaS has around ten years history by now, it is still up-to-date in practice. There are not many CRM as a service providers, clients and even lack of scientific documents about SaaS and especially in CRM as a service. Therefore, the authors believe theory conclusion of SaaS knowledge from literature review is the research contribution.

The second contribution piece is regarding new integrated knowledge. In this case eight generated propositions about advantages of CRM as a service integrated from SaaS and CRM system are new knowledge because there is lack of scientific document that revealed the same knowledge. Furthermore, future research regarding CRM as a service area could use the new tested knowledge in this study as a reference.

The third contribution piece is about examining new integrated theories from the second contribution piece. In details, eight generated propositions regarding CRM as a service advantages were examined by empirical data from six interviews.

Furthermore, the existing and potential CRM as a service provider and clients might see this research result to gain a better understanding about advantages of CRM as a service.

5.5 Problems connected to the research

There might be a question about the interviewed companies are all CRM as a service provider without clients representation. The fact that it is extremely difficult to find and interview CRM as a service client's representative, who is the decision maker or at least join the decision making of using CRM as a service. This is the most important reason that limits this study only focus on providers' views of CRM as a service advantages

However, due to the research purpose, authors believed that interviews with CRM as a service provider might give more comprehensive view and experience about advantages of CRM as a service than interview with a few CRM as a service client since providers should have tight relations with clients and know what they expect

from CRM as a service. In addition, the authors do not claim that interview with only CRM as a service provider is better than interview with both provider and client to get even more comprehensive view regarding CRM as a service advantages.

Another possible problem was the difficulty to collect literature about advantages of CRM as a service in a reliable way even both scientific and non- scientific documents were reviewed. This is due to the study focus is really new and there is the lack of scientific updated documents in this study focus.

However, this study purpose is to gain a better understanding about CRM as a service advantages. Authors do not claim this study covers all CRM as a service advantages, so this should not be a concern in this study result, and this study result might be used in future studies.

5.5.1 Bias in the study

The authors also self-reflect the bias issue in this study although the study focus is only about advantage of CRM as a service. In fact, CRM as a service also has disadvantages such as data security, service level agreement issue. Clients concern their data security because their data is stored in provider side and service level agreement is sometimes difficult to be fulfilled by provider. From this point, the authors reflect this study purpose has certain bias in focus only advantages of CRM as a service. However, the authors also argue this may not be seemed as bias due to CRM as a service advantage is this research interest. In addition, there might be bias about the interview group. The ideal interview group should contain both CRM as a service provider and client since this study focus is about CRM as a service advantages. In fact, this study only focuses on providers' view about advantages of CRM as a service and the interview with providers could provide a broader and deep view on the CRM as a service advantages due to provider has tight business relation with client and should know more about clients' expectation of CRM as a service advantage. In contrast, interview with specific clients can only reflect certain specific view about CRM as a service advantages from specific client. Therefore, the authors argue interview only with providers may not be seemed as bias. Finally, the authors reflect that there could be bias in questionnaires because the questionnaires state CRM as a service advantages directly and asked interviewee's opinion on that. This kind of questionnaires may lead interviewees in answering the question. However, the authors argue the purpose of designing the questionnaires in this way is to comprehend all the advantages of CRM as a service explicitly. So the interviewees can express their experience and knowledge on that easier. In addition, it reduces the chance in missing any points of CRM as a service advantage. In fact, some interviewees still deny some propositions about CRM as a service advantage and this means the questionnaires do not lead interviewees' answer heavily. Therefore, the authors think there may be bit bias in questionnaires, but it did not significantly affect the interview result.

5.6 Further Research & discussion

The study purpose is to gain a better understanding about CRM as a service advantages and the study subject focus was on CRM as a service provider. Even though the authors believed that readers may gain a more comprehensive view about the advantages of CRM as a service from providers' view in this research.

However, the authors also think it would be interesting to carry out a further research about the advantages of CRM as a service from clients' perspective. Later on, both researches about the advantages of CRM as a service from providers' view and clients' view can be compared and analyzed to gain even more deepen understanding of CRM as a service advantages. As previous studies show, the situation that more and more software will be delivered as a service, it seems like this trend will become a new software delivery phenomenon as authors imagine.

Therefore, it will be very interesting and meaningful to carry out further study on "SaaS phenomenon" in the future to develop a deeper insight about "SaaS phenomenon". On the other hand, some previous studies also show the drawback of SaaS and the decision of going for SaaS or software on-premise might have huge influence in business success.

Thus, the authors think people need to be cautious by SaaS setback and a further research about SaaS setback might give balanced deepen understanding of SaaS. Furthermore, since this study is focused on CRM systems only and there might be some further study possibilities on the other software applications regarding its delivery model issue if the coming author need.

Furthermore, there is a big argument about CRM as a service has advantage in CRM system customization. Most providers disagreed with this proposition and only one provider agreed on this proposition. The authors think this proposition may be an advantage of CRM as a service in the future accompanying the technology development. In addition, proposition 3 was denied as an advantage of CRM as a service by one company as mention in overall results section. This argument point may link with the scale and degree of scalability in user expansion during certain time or the other constraints such as IT infrastructure, technical human resources.

Appendix 1: Interview guide

The questionnaires that have been used during the interviews are shown in this part.

Q1: Could you tell us your function in the company?

Q2: Does the company provide CRM system as a service or a product, or both?

Q3: Could you give a brief introduction of the difference between CRM being served as a service and as a product? What does service mean to you?

Q4: CRM as a service reduces large upfront capital expenses, infrastructure costs and unused-function costs for clients? Does it promote CRM as a service instead of a product in software provider's view? What is your opinion about that?

Q5: CRM as a service eliminates much of the risk surrounding software-acquisition for clients? Does it promote CRM as a service instead of a product in software provider's view? What is your opinion about that?

Q6: CRM as a service gives clients more scalability in user expanding? Does it promote CRM as a service instead of a product in software provider's view? What is your opinion about that?

Q7: CRM as a service makes CRM system to be easily customized? Does it promote CRM as a service instead of a product in software provider point of view? What is our opinion about that?

Q8: CRM as a service reduces CRM system implementation time? Does it promote CRM as a service instead of a product in software provider point of view? What is your opinion about that?

Q9: CRM as a service might make the CRM customer company rely on service provider for non-core operating processes support (focus more on their core business)? Does it promote CRM as a service instead of a product in software vendor point of view? What is your opinion about that?

Q10: CRM as a service might provide more accessibility, flexibility in CRM data update regardless clients' location? Does it promote CRM as a service instead of a product in software vendor point of view? What is your opinion about that?

Q11: CRM as a service helps the software provider to spend less time and cost managing compatibility, upgrading across several versions of the software and supporting customers? Does it promote CRM as a service instead of a product in software provider point of view? What is your opinion about that?

Q12: What are the other possible factors you consider CRM being suitable to be rent as a service instead of a product? Could you list the reasons one by one and give some description, explanation?

Q13: Do you allow us to present your name and company name in our study?

Appendix 2: Transcribing data

Salesforce.com

1) Could you tell us your function (what do you do) in the company?

I am vice president for Saleforces coperations.

2) Does the company provide CRM system as a service or a product, or both?
We provide the cloud computing company provides the service application to help, to manage and to share data and also improve customer relationship.

3) Could you give a brief introduction of the difference between CRM being served as a service and as a product? What does service mean to you?

The main difference is that we operate services. We run to manage all in infrastructure for our customers so our customers don't need to invest, to buy or to manage any hardware or software. And we have one cloud computing infrastructure mean every customers use the same infrastructure that mean we serve customer equally both small customer and large customer. For the customers, they don't need to bothered or worried about infrastructure a whole. For example, the whole thing to use their system is the connection in the Internet and the web browser so it's like Google that it is no software in laptop and it can process in any browser. Web-based system could be hosted by company web-based client. But we manage everything for customer so it doesn't matter it's consistent for all customer. They use the same application, the same infrastructure and there is no hardware or software they need to manage local. So it's different from customer think at all. They can link into the webpage and access the information; it's visible for you.

4) CRM as a service reduces large upfront capital expense, infrastructure costs and unused-function costs for clients? Does it promote CRM as a service instead of a product in software provider's view? What is your opinion about that?

Yes. We could talk about capital expense or operation expense because we sell the service. We have only capital expense. Because the customers they don't need to buy anything and then we provide the service system like subscription. It likes subscribing magazine or telling the company on mobile phone. There is only operational cost. So on this day, most customer want move on capital expense to operation costs. They don't need use a lot of money because of service. Compare that with software on-premise, they need to install software in laptop, to assess the scale of infrastructure, and to buy more servers, hardware and database. They feel during the service and then they pay during the engage with us. While, of course the customer usually get what they are paying for and there is no in traditional software. They know what they get. Our model is the name user they pay per user per month. It's different anything rely on each module and customer need.

5) CRM as a service eliminates much of the risk surrounding software-acquired for clients? Does it promote CRM as a service instead of a product in software provider's view? What is your opinion about that?

It can reduce risk. If you are sale person and you go to sell product, you have to show the system which easy-to-use and very flexible and accessible from any computers.

And the computer they can use and the cloud computing concept is much more easier to use CRM system. It's very easy to learn. It likes how do you ordering in amazon, it's so easy, you can just do it by your self. You don't have to have huge knowledge to doing that. So it is good for company don't have any IT expert in their business. And when the company feels not well in operating the system they can just cancel the service.

6) CRM as a service gives clients more scalability in user expanding? Does it promote CRM as a service instead of a product in software provider's view? What is your opinion about that?

In scalability, we have invested it more than three million dollar in our infrastructure so of course it become to having the scalability. It doesn't matter if you are one use or if you have ten thousand users, we can provision and serve that on the database so if you compare that to tradition software, you need to set any elements in your infrastructure. It doesn't matter how many users you are. Our customer, they can expand from ten users up to ten thousand user in minutes. We can provision users and also send out username and password login detail. Compare that with tradition software, you need to install software in your laptop, in your infrastructure, You need to buy more service more hardware and more database. Our customer, they don't need to think about that. It's very hard for traditional company. Customers need to spend time and money. They need to double infrastructure and actually they will have more workload.

7) CRM as a service makes CRM system to be easily customized? Does it promote CRM as a service instead of a product in software provider point of view? What is our opinion about that?

It's easy for customer expectation. And of course that 's one of key benefit. It's easy for customer to save their money and their time. Because we have tools for customers to customize some part in system. Of course, it's normal advantages. It's easier to customer than tradition software.

8) CRM as a service reduces CRM system implementation time? Does it promote CRM as a service instead of a product in software provider point of view? What is your opinion about that?

Implementation time is depend on customer. It takes time less than a month or rarely a month but on-premise, customers have to spend time at least 12 months or longer. So CRM as a service deployment is 50 to 60 % faster than on-premise.

9) CRM as a service might make the CRM customer company rely on service provider for non-core operating processes support (focus more on their core business)? Does it promote CRM as a service instead of a product in software vendor point of view? What is your opinion about that?

We are cloud-based company. It could potential start using for core information and our goal is to expanding it into any area of company and we deliver service to our customer and they trust us. And they will move on and put other application in our platform. We think that great offering to customers because it support them to focusing more on their business.

10) CRM as a service might provide more accessibility, flexibility in CRM data update regardless of where the customer is? Does it promote CRM as a service instead of a product in software vendor point of view? What is your opinion about that?

Those they need in saleforce in web browser or for iphone or blackberry and it can connecting saleforce. So it doesn't matter where are you in the world. And of course it's huge benefit so you don't need software install. Compare with on-promise product. If we provide as a service, it's more accessibility Yes.

11) CRM as a service helps the software provider to spend less time and cost managing compatibility, upgrading across several versions of the software and supporting customers? Does it promote CRM as a service instead of a product in software provider point of view? What is your opinion about that?

Because we manage the whole infrastructure so our customers they don't need bothered any upgrade or anything like that. We do that for them. That offers as a service. And we upgrade normally three times a year. We can innovate and fix error quicker. It is driving force for CRM as a service, Absolutely. Normally we upgrade three times per year in whole version while on-premise it takes normally every second years. Also, this is service. We host everything. If we need to upgrade or change anything in system, we don't need to go to customer. we can do from our desktop. Because we run it as a service we will know if some thing is wrong. It's advantage of service. Simple and cheaper. Customer doesn't need to install any software or something.

12) What are the other possible factors you consider CRM being suitable to be rent as a service instead of a product? Could you list the reasons one by one and give some description, explanation?

I think the main reason is our application actually works and we deliver to adding business value and taking care all of them. We have 65000 customers around the world. And they trust in salesforce.com in the most value for customer information. This proves enough. We have a lof of lawyer, banks, and the security company in the world and they trust us. Because we deliver the great service and reliable, they need to worry just only innovate in their business. They don't need to spend time or money for infrastructure. We do it for them. They don't need to worry about any additional cost.

13) Do you allow us to present your name and company name in our study?
Yes, of course.

Logica

1) Could you tell us your function (what do you do) in the company?
I am working as an CRM Organisation consultant, which means that I switch role from trainer, application consultant, business consultant and project manager. I've worked with databases for 32 years and with CRM specifically since 1995.

2) Does the company provide CRM system as a service or a product, or both?
Both.

3) Could you give a brief introduction of the difference between CRM being served as a service and as a product? What does service mean to you?
A service is a hosted solution, which can be sold as a package or a standard system. A product is a regular installation at customer site. The difference between the two (not package) is minor, since both need to find out customer processes so the system can be configured to match their way of working.

4) CRM as a service reduces large upfront capital expense, infrastructure costs and unused-function costs for clients? Does it promote CRM as a service instead of a product in software provider's view? What is your opinion about that?
Yes it does. I think hosting is very good for customers. They don't have to pay for any IT cost such as server, database. And also I think this type of license would be nice to have, customers pay only for service they use although with some restrictions on number of users. We cannot do anything about it. Microsoft designs all rules in dynamic CRM.

5) CRM as a service eliminates much of the risk surrounding software-acquired for clients? Does it promote CRM as a service instead of a product in software provider's view? What is your opinion about that?
I think when customers decide using hosted solution, they will get support from us. If they are not satisfied with us, there are so many Microsoft dynamic CRM partners. They can take this go to someone else. We have to take care all of customers, our service. Everything we have to take care of. But they deploy on-premise, it is very hard to confirm providers will take care customers after selling software to them. So it's low risks for customers in Microsoft Dynamic CRM partners.

6) CRM as a service gives clients more scalability in user expanding? Does it promote CRM as a service instead of a product in software provider's view? What is your opinion about that?
It's easy to add more users when necessary, both in a hosted solution and bought solution. Dynamics CRM is license based with named users. But, there is a difference if there is a call center. They can buy license by terminal instead.

7) CRM as a service makes CRM system to be easily customized? Does it promote CRM as a service instead of a product in software provider point of view? What is our opinion about that?
It doesn't matter if you choose a hosted solution or a bought product; Microsoft Dynamics CRM is absolutely the most easily customized product on the market. With configuration/customization it support a company's individual processes, both hosted or as a product. But with hosted, it has some limitation in customize because it's developed in same version for all customers.

8) CRM as a service reduces CRM system implementation time? Does it promote CRM as a service instead of a product in software provider point of view? What is your opinion about that?
Yes, it takes short time for customers to deploy our products, means Microsoft CRM dynamics because it is web-based. They don't have to spend time for installation and configuration system.

9) CRM as a service might make the CRM customer company rely on service provider for non-core operating processes support (focus more on their core business)? Does it promote CRM as a service instead of a product in software vendor point of view? What is your opinion about that?

I think that if you have a hosted solution, of course the customer has to rely more on the provider more than if they bought the program themselves. But, with Dynamics CRM it is possible to export the whole solution and implement the information in another Dynamics CRM-system. The advantage is companies probably focus more and more on their business because we are helping with the configuration and stuff like that. It's easy for them also.

10) CRM as a service might provide more accessibility, flexibility in CRM data update regardless of where the customer is? Does it promote CRM as a service instead of a product in software vendor point of view? What is your opinion about that?

This is standard advantage of Dynamics CRM because we provide it as web-based. Customers can login and use system from everywhere. So they don't have to worried that they cannot update their customer's data or so on.

11) CRM as a service helps the software provider to spend less time and cost managing compatibility, upgrading across several versions of the software and supporting customers? Does it promote CRM as a service instead of a product in software provider point of view? What is your opinion about that?

Upgrade or installation of SP (service packs) is in Dynamics CRM an easy process. The program is built in layers which means that when upgrading it does not affect the data or configuration. The way Microsoft does it, is the same for hosted solutions or if customer has baught the system. My opinion is that this is the best way to do it. Technicians can work from a remote connection-solving problem. If there is a bug in developed code or customization, we can export a customer's whole implementation, do the correction in our environment and then import it back to the customer.

12) What are the other possible factors you consider CRM being suitable to be rent as a service instead of a product? Could you list the reasons one by one and give some description, explanation?

I think that the most important factors for a hosted solution is the one you already mentioned;
- no direct cost of machines
- no direct cost of SQL, Exchange etc
- no direct cost of it-personel
- no direct cost of upgrades and service packs
I think you cover whole thing about SaaS. The Microsoft dynamic CRM work integrated with Microsoft outlook.It can be integrated into everything as long as compatible with Microsoft.

13) Do you allow us to present your name and company name in our study?
Yes… why not.

24SevenOffice

1) Could you tell us your function (what do you do) in the company?
Sales Executive

2) Does the company provide CRM system as a service or a product, or both?
We provide the CRM system as a service. Not really as a product you can buy. You can subscribe to it. Of course. It's system, you know for cloud computing which means that you subscribe it. So it's service. The only difference between service and product is the way that you actually supply it.

3) Could you give a brief introduction of the difference between CRM being served as a service and as a product? What does service mean to you?
The main difference is the way how it distributes or supply. Also, Instead of installing software on the local machine, you access the software via the internet. That is technically the difference. For commercial point of view, there are a lot of advantages to do that. One thing is that total cost of ownership goes down because there is more customer using the same system, meaning that the additional cost or marginal cost for adding new users is very low for us. And send consultant out to making the installation and setting parameter in system and so on. The total cost of ownership overtime is much lower for software as a service. Being on webpage service, you can actually add other web-based services in a much easy way. That means you can offer additional services to your customers. It means you can have your customer interact with each other in the way that never possible before. If I have customer A and customer B, both being my customers. They can also interact with each other, because they are customers on me. It means that they can share a lot of information between themselves and it's useful for them. That means I actually give more value to them.

4) CRM as a service reduces large upfront capital expense, infrastructure costs and unused-function costs for clients? Does it promote CRM as a service instead of a product in software provider's view? What is your opinion about that?
If you buy a system as a product, you need to buy server, some hardware cost, probably a separated database, license. You don't have any large capital expense at all actually. You turning that thing to direct cost instead per month. And there is no infrastructure cost. You don't even need a network. So,the cost is cheaper than software on-premise because it need to have setting up cost while CRM as a service, you only need the computer with web browser. And you can access it wherever with Internet. For licensed We bill by the number of users and level of usage. As I showed you the functions before, All of modules have different cost price. It's up to module what user need to use. And we have a price range in our business model. Saying that the people user varies depending on how much of the system they use. There is no transaction-based cost. For instance, the cost for a customer is between 60 swedish krones per month per user and up to 500 swedish krones price per month per user. And 500kr is the top maximum price that you have paid. We charge depending on what module the customer use in using system. We don't care, for example 1 transaction or 1 million transactions.

5) CRM as a service eliminates much of the risk surrounding software-acquired for clients? Does it promote CRM as a service instead of a product in software provider's view? What is your opinion about that?
We offer demo to customers before they decide to use it or not.If you aren't sure that you 'd like to use the service, if you have 20 employees in your company but you aren't sure that you want to use, well, you can try. Take one or two users to try it for

1,2, etc months until you feel confident and that yes that is something that the whole company should use. It doesn't cost much. There is no installation cost. And there is hardly start-up cost. There's a little fee for training. Also, we never say that you have to become a customer and stay as a customer for 12 months or 24 months or whatever. You can use our service as long as you like. If you don't like it, you just let us know and then we stop send invoice to you. And there is no specify contract time.

6) CRM as a service gives clients more scalability in user expanding? Does it promote CRM as a service instead of a product in software provider's view? What is your opinion about that?
That is not problem at all, our business model allows anything from one user to thousand users if you like. There is much more flexibility in terms of web-based service as supposed to install client solution. If customers decide to use CRM as a service for ten users, it is always a minimum cost for CRM as a service instead using CRM on-premise. When they need to increasing or decreasing the number of users, it is flexible because we provide it as a service. There is much more flexibility. And I think that is one of driving factors behind the successful of cloud computing. It's flexible and you share the cost with many more people than you do other one. That one of the driving reasons behind the successful of service as a software or cloud computing.

7) CRM as a service makes CRM system to be easily customized? Does it promote CRM as a service instead of a product in software provider point of view? What is our opinion about that?
I would say we can do a lot of individual adaptations, but they all come in a format like I just said before. From technical point of view, any addition that is asked for specific customer, yes, we can do that. But technically it becomes available to everyone. But of course, we have our access structure to prevent that from happening. So I should say if it is very specific needs or very unusual needs for a specific company or customer. Well, then we are not perhaps the right provider or vendor. Because we do talk about configurable standard solution, highly configurable, yes. But still standard solution, no special solution for cloud computing. Then you have to go to a software-company and pay them a lot of money to buy the hour to develop your exact specification. More and more company realize that this is the case.

8) CRM as a service reduces CRM system implementation time? Does it promote CRM as a service instead of a product in software provider point of view? What is your opinion about that?
Yes, I think it's short for CRM as a service. Well, it's very hard to say how much time we take but from technical point, we might do it in half-day. When we receive customer's data, we can setting the system suddenly and send back to them as fast as possible

9) CRM as a service might make the CRM customer company rely on service provider for non-core operating processes support (Focus more on their core business)? Does it promote CRM as a service instead of a product in software vendor point of view? What is your opinion about that?
I am not sure actually if this is a problem or not. I think this is an over going problem.

I think a lot of people are still a little reluctant, they are feeling hesitant. They are not sure if they should let someone else run their business for physical point of view. But as the younger generation grow up. being used to use internet. I mean everyone under 40 use internet to do their private banking, you can do your tax over internet. More and more in your every life and payment transaction via credit card, buy music, buy traveling, buy Airline ticket and buy whatever over internet. More and more people are becoming more and more used to the fact that you can have the service provided via the Internet. I think this is over going problem, we do still running to that. Well, Can we actually trust you, what happen if you disappear? What happen If you go bank corrupt? what happen to our data? This are all relevant questions, but Cloud computing is the phenomenon, I think this is disappearing problem, more and more people realize that this is not really different from what we doing today.The fact that our environment meaning that the way we host the service with the redundant system and legal backup, even nuclear bomb safe backup. It's much better than so called normal company do today at home. They need to rely on service provider. Some people may feel a little bit negative about that because they don't know they can trust it or trust us. But I think it will be disappearing because people actually ready to take that risk more and more. We together with our colleagues in the business are improving constantly that the higher level of security and reliability than what locally installed application would offer normally.

We are not only CRM provider, we provide ERP, which includes email, document, file handling , finance, project management, time reporting solution as well. And yes, which allows you focus on core business, you can do more on your core business.

10) CRM as a service might provide more accessibility, flexibility in CRM data update regardless of where the customer is? Does it promote CRM as a service instead of a product in software vendor point of view? What is your opinion about that?
Yes, this definitely promotes software as a service. It's one of the driving forces. Accessibility.As I said we provide CRM system via Internet and webpage so customer can login from where they are.

11) CRM as a service helps the software provider to spend less time and cost managing compatibility, upgrading across several versions of the software and supporting customers? Does it promote CRM as a service instead of a product in software provider point of view? What is your opinion about that?
We only have one version of the software. But we have upgrade constantly. But that something done some daily more, we make changes additions. So we are not talking about software release 1.1, 1.3 or 5.0.5 like most software providers do. We just have one version of the system and then of course you can configure it individually which means that you use or don't use different functions in the system. But basically there is just one version and same version for all users. And it changes constantly and we constantly add new functionality. There is no question compatibility between versions because simply there is not any different version, there is only one version. And of course that is also one of the driving forces behind software as a service. Reducing the cost like you saying here because we don't need to spend time managing compatibility and handling different versions, that is not an issue. One system and one version for all users. Even though it is more complex as a whole, because different

users use different part of system and that could even be specific functions which some customers have paid for. We don't do update as I said upgrade of versions, because that handle all the time. We don't do specific for customer's upgrade. But of course, yes, it's easy to correct error, because we physically sit on the hardware. We are hosting applications ourselves. So we don't need to travel around the world to do anything. This has also the impact on total cost of ownership. Customer support become easier, cheaper and faster.

12) What are the other possible factors you consider CRM being suitable to be rent as a service instead of a product? Could you list the reasons one by one and give some description, explanation?
Well, one thing I just mention is the fact that you can actually start interacting with others.If we have customer A and B using the same systems, that means they can take part in same community. We call Community. That is business community. that's like facebook for business people and make interact with each other. They can buy and sell thing to each other and they can open up. Let us say that we have ten thousand companies selling different products. That is our customers. That means this ten thousand companies can buy things and sell things to each other just because they are part of the same community. Because I can provide tool for that. I can say to any companies that becoming one part of community "Would you mind to open up your article database to become public in the community?" and they say "Yes certainly" we will make it public. Then I can provide tool for anyone who looking for let us say office material, I am looking for office material, what provider are there and price, and I can do mechanic automatic tool that gives me the best product and best price without any human interaction at all. The system can do that for you. And if they are starting to make business with each other, the typically question between companies is someone from one finance department to another finance department can making telephone call, "could you please fax me that copy of the latest invoice?". That is very common reason for calling each other. And then the fax is coming and the fax disappears, blabla etc. Instead of having that, spending time on that. They allow access to each other's letters. There are a lot of add-ons or value added by being in the same community. That is one of the main advantages, that is the value-added when you use software as a service.

13) Do you allow us to present your name and company name in our study?
Yes

Minerva
1) Could you tell us your function (what do you do) in the company?
R1: I am commercial manager, so I take care all customers, all contracts.
R2: CRM Business Consultant

2) Does the company provide CRM system as a service or a product, or both?
R1: No. We are an agent for Oracle, so Oracle is having care of the hosting and subscription; and take care of sales and implementation
R2: We provide consultancy covering both CRM on Premise and CRM SaaS

3) Could you give a brief introduction of the difference between CRM being served as a service and as a product? What does service mean to you?

R1: SaaS is hosted solution and provided via the internet , so nothing on your own servers

R2: In this respect service is a subscription based delivery model, meaning that the customer is not obliged to make major upfront investments himself. The service is delivered by the vendor and priced based on usage.

4) CRM as a service reduces large upfront capital expense, infrastructure costs and unused-function costs for clients? Does it promote CRM as a service instead of a product in software provider's view? What is your opinion about that?

R1: Yes. Cheaper for small companies to get started. More flexible. .CRM is as much about behavior and line of thought, as it is about IT and software. But SaaS nonetheless makes it cheaper, faster and easier also for small companies to get started with CRM

R2: Maintenance is now the responsibility of the vendor, so yes. But maintenance windows of the vendor might not suit all companies. So all in all only partly. Cost. Hardware. It is the benefit for customer.

R1: If you buy the software, there is no pay back on not used license.

Our price model is that we pay per user per month and that covers most of it. There are two exceptions one of them is if you sending email to our email server, we charge a bit of money of the volume of your sending, and if u use mobile as application, so you have CRM on demand on your mobile phone, then there is a fee for that

5) CRM as a service eliminates much of the risk surrounding software-acquired for clients? Does it promote CRM as a service instead of a product in software provider's view? What is your opinion about that?

R1: Customers have risk for investment in on-premise because they have invest some costs for testing system while SaaS can reduce it. We can give test version to customer via website so they don't have to do anything. Just have only internet.

6) CRM as a service gives clients more scalability in user expanding? Does it promote CRM as a service instead of a product in software provider's view? What is your opinion about that?

R1: I agree, because thinking SaaS, you have the scalability into the solution.

R2: Sure. Scalability is cheaper and faster. No need to invest in new infrastructure. Scale down is faster as well. I agree. It is flexible when your business changes, you can also change the number of users.

7) CRM as a service makes CRM system to be easily customized? Does it promote CRM as a service instead of a product in software provider point of view? What is our opinion about that?

R2: No. The flexibility of SaaS CRM is still based on the concept of one size fits all. Some business objects can be customized and some process automation is possible but only within the limits defined by the vendor. It is very difficult to say flexibility of CRM as a service is much higher with CRM on-premise. So I do not agree with this point.

8) CRM as a service reduces CRM system implementation time? Does it promote CRM as a service instead of a product in software provider point of view? What is your opinion about that?

R1: The biggest factor is that compare to on-premise where u have capability of doing where u start from the blank paper. When u do a CRM on demand, you have all the processes embedded, and then u focus on the 5% u need to change, for example, if we have 200 standard reports available and we add addition more, so user more or less just have to tell what he is not interesting in using rather than have to build all the thing on the scrath, that is significant fast, if you build things on scracth, you build on ur own experience, maybe on the consultancy company as well, but you do that on limited experience. But if you take CRM as a service, u get some of all their experience, that is why it is so much faster. The implementation time is faster. Customers need only web-browser and Internet to running CRM as a service while on-premise, it at least takes time one month to set up server test system and so on.

9) CRM as a service might make the CRM customer company rely on service provider for non-core operating processes support (Focus more on their core business)? Does it promote CRM as a service instead of a product in software vendor point of view? What is your opinion about that?
R1: It doesn't have to be like that, but in most case, it is yes. Yes. No doubt.
R2: Sure. Receiveing hosted software services directly accessible through a secure connection is a huge benefit for any company. Hardware is expensive and in house resources are usually spend better than managing servers.

10) CRM as a service might provide more accessibility, flexibility in CRM data update regardless of where the customer is? Does it promote CRM as a service instead of a product in software vendor point of view? What is your opinion about that?
R1: It is a web application, it is easier to update the data from customer point of view.This is also possible with other solutions, through VPN, e.g.
R2: Most CRM as Service solutions are IP address limited (Of course), so I don't see a difference.

11) CRM as a service helps the software provider to spend less time and cost managing compatibility, upgrading across several versions of the software and supporting customers? Does it promote CRM as a service instead of a product in software provider point of view? What is your opinion about that?
R1: The company has just one version and upgrade it. And CRM as a service makes the software upgrading, compatibility much easier
R2: Yes, we have the remote access to the server that we can handle things immediately from wherever we are. Basically all customers use the same version. If you talk about technical problem, then we don't need to send consultant to customer, but sometimes, when people are saying I have technical problem, then it is technical problem and it is solved by technical people remote, no body is going anywhere. But sometimes, the customer thinks like technical problem, but it is more like, yes, it is because the other part of your business has asked the system to be able like this, and you need to get the common opinion how you want to react. In that case, we might need to go to the customer and discuss with them, we need to take a look at the business process and we have to send business people to customer and explain why this is not possible. Maintenance and trouble shooting by vendor is a benefit.

12) What are the other possible factors you consider CRM being suitable to be rent as a service instead of a product? Could you list the reasons one by one and give some

description, explanation?

R2: For the total cost of ownership, you have the support and maintenance done every centralized, because you share what is available, the cost with other people, so we can optimize stuff, that is why the cost is reduced as well.

New hybrid models where SaaS and CRM as a product are mixed is the future. You get the processing power and flexibility of on premise in combination with the low price of end user licenses.

13) Do you allow us to present your name and company name in our study?

R1: Yes

R2: Yes

Microsoft

1) Could you tell us your function (what do you do) in the company?

I works as product marketing manager for Microsoft Dynamics CRM. I'm responsible for material to partners, the websites, launch information, educations for partners, marketing activites etc.

2) Does the company provide CRM system as a service or a product, or both?

Microsoft Dynamics CRM can be bought both as an installed client version and as hosted CRM. We call this power of choice.

3) Could you give a brief introduction of the difference between CRM being served as a service and as a product? What does service mean to you?

There is no difference in the functions of the program. If you choose to work with hosted CRM, a hosting provider takes care of the installation and the upgrades. If you buy from a strict hosting partner you probably have contact with a CRM partner as well, to run the CRM project and the hosting partner take cares of the installation.

Choose on-demand deployment with hosted CRM if you want a rapid, affordable, and streamlined way to implement Microsoft Dynamics CRM 4.0. You can pilot it online before you bring it in-house, or use it indefinitely to reduce the burden on your IT staff and minimize your costs.

4) CRM as a service reduces large upfront capital expense, infrastructure costs and unused-function costs for clients? Does it promote CRM as a service instead of a product in software provider's view? What is your opinion about that?

With hosted CRM, you'll reach Microsoft Dynamics CRM via the Internet. Dynamics CRM software is stored in the hosting provider's secure data center and you avoid up-front investment in the form of software licenses and hardware. All you need to do is start up the service and begin to upload customer information. More and more companies are attracted by the benefits of a safe, stable custom solution without having to spend time on operation and installation. Simplicity and the ability to grow

in their IT environment without the need to involve large initial investment is made possible with hosting. Full control of the licensing of the service/product - your hosting provider is licensed - you will not have to handle the license administration. The costs are easy to budget.

5) CRM as a service eliminates much of the risk surrounding software-acquired for clients? Does it promote CRM as a service instead of a product in software provider's view? What is your opinion about that?

It's offered to customers as web-based. So they need only Internet and web-browser for using it. They can test demo CRM as a service easier than on-premise since they have only computer connected Internet and then they can test it immediately after we send username, password and URL to them. And they can Try a hosted solution and evaluate it before you decide finally. It reduce unpredictable cost from testing process.

6) CRM as a service gives clients more scalability in user expanding? Does it promote CRM as a service instead of a product in software provider's view? What is your opinion about that?

Yes you can expand the CRM system in the same way that your business grows. The scalability is one of the biggest advantages with hosted CRM. You just call your hosting vendor and add more users. You pay per month for number of users.

Hosted Dynamics CRM is flexible - scale up or down by changing the number of users which are needed. And Dynamic CRM is the multi-tenant architecture. You can access into system and scale the number of user instantly.

7) CRM as a service makes CRM system to be easily customized? Does it promote CRM as a service instead of a product in software provider point of view? What is our opinion about that?

The system works exactly the same way. It is no problem when they would like to customizing in on-premise. But Dynamic CRM, they can customize only in some functions.

8) CRM as a service reduces CRM system implementation time? Does it promote CRM as a service instead of a product in software provider point of view? What is your opinion about that?

Dynamics CRM help you running system quickly because we are taking care all of IT infrastructure. Dynamics CRM as a hosted solution can be configured and rolled out within a few days.

9) CRM as a service might make the CRM customer company rely on service provider for non-core operating processes support (Focus more on their core business)? Does it promote CRM as a service instead of a product in software vendor point of view? What is your opinion about that?

Instead of buying, installing and operating the servers, your company can focus on your own business. Focus on your core business and let an external CRM hosting provider assume responsibility for IT operations of the system.

10) CRM as a service might provide more accessibility, flexibility in CRM data update regardless of where the customer is? Does it promote CRM as a service instead of a product in software vendor point of view? What is your opinion about that?

Because we provide customers via Internet. It's easy for them to login and use the system. Customers can use system from everywhere in the world. It's flexible than on-premise. It is used only from customer's site. While, in hurry case, they can update data as soon as they can in CRM dynamics. They can do it from their place.

11) CRM as a service helps the software provider to spend less time and cost managing compatibility, upgrading across several versions of the software and supporting customers? Does it promote CRM as a service instead of a product in software provider point of view? What is your opinion about that?

Yes it's easy for us. We can maintain 24 hour and 7 days. It means we can manage such as security update, backups and etc. always.

12) What are the other possible factors you consider CRM being suitable to be rent as a service instead of a product? Could you list the reasons one by one and give some description, explanation?
From your question, I think it covers all points of our advantages of CRM as a service now.

13) Do you allow us to present your name and company name in our study?

Yes, surely

CRM-A
1) Could you tell us your function (what do you do) in the company?

I am in Sale

2) Does the company provide CRM system as a service or a product, or both?

Yes

3) Could you give a brief introduction of the difference between CRM being served as a service and as a product? What does service mean to you?

When it is Service, it is not installed in your servers but it's installed on our servers. That's the difference. So the service means where the application is hosted.

4) CRM as a service reduces large upfront capital expense, infrastructure costs and unused-function costs for clients? Does it promote CRM as a service instead of a product in software provider's view? What is your opinion about that?

Yes. It's correct. Describe correctly.That promote it is as a service. That's correct. If they need to use CRM on-premise, they have to invest all IT cost.

5) CRM as a service eliminates much of the risk surrounding software-acquired for clients? Does it promote CRM as a service instead of a product in software provider's view? What is your opinion about that?

Yes it can help customers reduce risk because this systems are provided via Internet. Therefore, they do not have to invest or do anything before using systems.

6) CRM as a service gives clients more scalability in user expanding? Does it promote CRM as a service instead of a product in software provider's view? What is your opinion about that?

No, because they can expand anyway even they have as in-house. Absolutely no.

Sometimes they want to invest in in-house solution, they have to spend a lot but they can still scale the number of users.

7) CRM as a service makes CRM system to be easily customized? Does it promote CRM as a service instead of a product in software provider point of view? What is our opinion about that?

No. if it is Software as a service, then it is less customizable, it 's more straight-on.

It is like renting house instead of building house. You can renting house and furnish the way you like. But if you build the house you can do it exactly the way you want.

If you rent the house, its framework is the same, you have more strict guideline of what you can customize and what u can't. If you build house, you can destroy one wall and build something completely different. If you build a house, you can do whatever you want.

8) CRM as a service reduces CRM system implementation time? Does it promote CRM as a service instead of a product in software provider point of view? What is your opinion about that?

Easy, quick to implement. It depends on how much you have to customize, but just takes a week, not month or year, that is a good point.

9) CRM as a service might make the CRM customer company rely on service provider for non-core operating processes support (Focus more on their core business)? Does it promote CRM as a service instead of a product in software vendor point of view? What is your opinion about that?

Yes, CRM as a service is able to reduce cost. So they can use that money to invest more on their core-business.

10) CRM as a service might provide more accessibility, flexibility in CRM data update regardless of where the customer is? Does it promote CRM as a service instead of a product in software vendor point of view? What is your opinion about that?

Yes.It's correct. because it's delivered as web-based.

11) CRM as a service helps the software provider to spend less time and cost managing compatibility, upgrading across several versions of the software and supporting customers? Does it promote CRM as a service instead of a product in software provider point of view? What is your opinion about that?

Yes they donot have to worry about that and so on because it handles automatically. So that's correct. That is the point from software vendor aspect. It is easy for us to maintain and update system from our site. We don't have to go to any customer's site that we have to spend high cost and long time.

12) What are the other possible factors you consider CRM being suitable to be rent as a service instead of a product? Could you list the reasons one by one and give some description, explanation?

No.

13) Do you allow us to present your name and company name in our study?

I am sorry.No

Appendix 3: Letter of authorization to interview

Dear Sir or Madam:

My name is Minpeng Zhu and I am a master student at Lund University, Information Systems program. We (Minpeng and my colleague Wiphop) are currently writing our master thesis and our research interest is software as a service (SaaS),

We know that the company offers software as a service to customer and one kind of such software is customer relationship management (CRM) system. That is exactly what we are interested in and what is directly related to our research.

We would like to ask if would be possible to have the chance to have interview with the company employees, for example, business consultant, or salesperson, or expert in CRM as a service. You can find some more information about our research in research topic, research question, research scope, data confidentiality, privacy, thesis publish and questionnaires (which we want to ask during the interview).

We are wondering if we could have about one hour for the interview between 16th and 05th May. We are thinking about face to face or telephone interview. We would prefer the face to face interview, since it is more interactive and it would be easier to explain the issue.

Thank you very much for your help.

Yours faithfully

Minpeng and Wiphop

Research Question: What is the providers' view of advantages of CRM as a service?
Investigation Questions:

- *Q1: What is the current understanding in the literature of advantages of SaaS?*
- *Q2: What does service mean to CRM as a service providers?*
- *Q3: What are the differences between CRM as a service and on-premise in providers' views?*

Research scope:

Our research focus is only in the advantages of CRM as a service, we are not interested in for example, the benefit of CRM as a product, the setback of CRM as a product, and the setback of CRM as a service. I will illustrate this research scope by the following table:

	Advantages	Disadvantages
CRM as on-premise		
CRM as a Service	**x**	

Data confidentiality:

We are trying to interview some consultants, experts in CRM as a service and collect the data during the interview. Later on we will transcribe the interview data and we will then send them back to interviewee for approval. Later on, the interview data will be used in our thesis and the company name could be either shown or not be unrevealed, it is up to software vendor company. We will follow and respect the company choice about such identity issue. That is basically how we plan to keep data confidentiality and privacy.

Thesis publish:

Our thesis will be published on the university site, OLLE (http://biblioteket.ehl.lu.se/olle/). It is not supposed to be published somewhere else.

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