Handelshögskolan i Göteborg
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Master thesis

CRM in 3G Telecom –

The Customised Point of Contact

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Mikael and Andreas

Abstract

We have studied CRM in a service provider's perspective on behalf of Ericsson Microwave Systems AB. The question at issue we decided to investigate is ***"How should a service provider set up a point of contact in order to manage customer relations in the 3G mobile Internet?"*** To reach a conclusion we have conducted a qualitative study including literature survey and three interviews.

This thesis is a design proposal for how to set up an Internet based point of contact in order to manage customer relations in the 3G mobile Internet. In order to get a base of knowledge about customer service we have studied one-to-one customer interaction, Customer Relationship Management [CRM], and contact centers. We have also looked at the telecom business and it's particular value chain.

The service provider is becoming a provider of subscriptions containing services. In order to provide e.g. network access for the subscribers the service provider must form an alliance with a network operator. This alliance can also be increased with other suppliers of whatever services that adds value to the subscriber. When the service provider forms this value chain, it is the requirements / demands and needs of the subscriber that sets the framework of what to include.

The point of contact can be seen as processes that help the subscriber manage her subscription. The processes we have identified as the core processes in the point of contact are sales, order handling, problem handling, and invoicing and collections.

With 3G the services will become more complex not only because of the technological possibilities, but also because the service providers will build alliances with the most suitable partners. That implies co-operation on an organisational level when the subscriber has a complaint regarding her subscription.

The service provider should provide multiple channels for interaction with their subscribers. The subscriber should then be able to adapt the content in these channels to suite her own personal preferences.

The point of contact makes self-service possible, but the customers are not ready to take the leap into the fully automated world of customer service and therefore a contact center will still have a place in the foreseeable future.

Sammanfattning

Vi har studerat CRM ur en service providers synvinkel på uppdrag av Ericsson Microwave Systems AB. Frågeställningen som vi valt att studera är ***”Hur ska en service provider konstruera en mötesplats för att hantera kundrelationer i 3G mobilt Internet?”*** För att komma fram till en slutsats har vi genomfört en kvalitativ studie med litteraturstudier och intervjuer.

Detta arbete är ett designförslag till hur en Internetbaserad mötesplats kan konstrueras för att hantera kundrelationer i 3G mobilt Internet. För att få grundläggande kunskaper om kundvård har vi studerat one-to-one customer interaction, Customer Relationship Management [CRM] och contact center. Vi har också tittat på telekom området och dess värde kedja.

Service provider’n blir en leverantör av abonnemang som innehåller tjänster. För att kunna erbjuda t ex nätaccess måste service provider’n alliera sig med en nätoperatör. Denna allians kan utökas med andra leverantörer av det som tillför värde för kunden. När service providern skapar denna värdekedja så är det kundens önskemål och krav som bestämmer vilka leverantörer som ska ingå i kedjan.

Mötesplatsen kan ses som processer som hjälper kunden att hantera sitt abonnemang. De processer som vi har identifierat som huvudprocesserna i mötesplatsen är försäljning, orderhantering, problemhantering och fakturering och betalning.

Med 3G kommer tjänsterna att bli mer komplexa, inte bara på grund av de tekniska möjligheterna, utan också på grund av att service provider’n bildar allianser med lämpliga partners. Det innebär ett samarbete på organisations-nivå mellan partnerna i värdekedjan när kunden har ett klagomål som rör abonnemanget.

Service providern bör erbjuda multipla kanaler för interaktion med sina abonnenter. Abonnenten bör kunna anpassa innehållet i kanalerna utefter sina personliga önskemål.

Den Internetbaserade mötesplatsen möjliggör självbetjäning, men dagens kunder är inte mogna att enbart använda sig av självbetjäning därför kommer det finnas ett behov av ett contact center under överskådlig tid.

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In chapter 2 we present the method that we developed and used.

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Chapter 4 Empirical results – Experts' opinions

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In Discussion we analyse and interpret the result.

Chapter 6 Conclusion

In chapter 6 we present what we intended to do, what we have done, and what the main result is.

Chapter 7 Recommendations for further work

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In the appendix you will find images of 3G terminals. We also include our questions for the interviews, and the interviews that we conducted.

Terms and definitions

3G

The Third Generation mobile telephony system that will bring high-speed radio access and IP-based services to subscribers.

Call center

The call center handles the incoming telephone calls from the company's customers. (M. Eriksson, personal communication, April 20, 2001).

Churn

In telecommunications churn is the rate for describing the loss of subscribers.

Co-browsing

Co-browsing is an online support service. The user allows a contact center (for example) to access the same browser window she is visiting, i. e they are sharing the same content. That way the support will be based upon the same information that the user sees.

Communication device

A communication device is for example a cell phone, a PDA, a laptop or a desktop, or any device manufactured with built in communication possibilities.

Contact center

The contact center handles the incoming telephone calls, e-mails, web-site interaction, fax, and IVR etc from the company's customers. A contact center has multichannel support. (M. Eriksson, personal communication, April 20, 2001).

Content aggregator

A content aggregator is a company that delivers content to customers. The content is produced by a content provider and packaged by the content aggregator together with content from other content providers to add value to customers. The aggregated content may be delivered directly to a customer or through a service provider.

Content broker

Another term for Content aggregator.

Content provider
: Produces content and services for use in the mobile Internet. The content may be sold through a content aggregator, a service provider or directly to a subscriber or end user.

CRM
: Customer Relationship Management. A strategy to attract, develop and retain customers

CRM system
: A CRM system is a system built for a CRM purpose. It could be a system for marketing, sales, and support etc.

Customer
: The customer purchases services from a company. In this thesis the term customer is used in terms of the unspecified customer (no matter the business). (Compare to subscriber).

Customer process
: The customer process is the customer's process of decision-making and value creation that leads to the building of a relationship with a company. (Storbacka & Lehtinen, 2000).

End user / user
: An end user is in the domain of the subscriber. An end user is interested in using communications and data services, e.g., Telecom, Internet/Intranet, Mobile/Wireless, etc. The end user may be the subscriber but can also be someone else such as the subsciber's daughter or an employee.

IVR
: There are two definitions for IVR: Interactive Voice Respons and Interactive Voice Recognition. The difference is that Respons means touch-tone and Recognition means talking to a computer.

Mobile Internet
: The mobile Internet is the technology that will provide easy access to the Internet through a mobile device. With the mobile Internet people will be able to conduct business, send messages, browse the Internet, and receive infotainment content.

Network operator / provider
: A company that operates a communications network, network or data services capability, acting basically as a wholesaler. A network operator can be a service provider providing access retail.

Service provider

A service provider provides communications and/or data services to subscribers and end users as a business. A service provider may take on the network operator role or may subcontract this role. (TeleManagement Forum, 2000).

Subscriber

The subscriber purchases communications and/or data services from a service provider. The subscriber can also, but must not, be the end user.

Point of contact

The point of contact is a meeting place. A meeting place is where customer and company meet but not necessarily interact. For example, an invoice is a meeting, and so is a telephone call, a purchase or a complaint. (B. Nilsson, personal communication, April 25, 2000). The meeting can be manual and/or automated.

Relational value

The relational value is the overall value in the customer relation for the company. This value consists of a number of dimensions related to the specific company as well as the line of business. The importance shifts depending on company and strategy of the relation. (Storbacka & Lehtinen, 2000).

Retention

Retention means that the telecom operator takes action to keep the subscribers as customers.

Value creation process

The process an actor, organisation or person, goes through in order to obtain value in a situation.

1 Introduction

1.1 Background

This thesis is about Customer Relationship Management [CRM] for telecommunications in the 3G mobile network. Ericsson Microwave is aiming to offer CRM solutions to their customers [service provider] worldwide. The service provider will use these solutions to manage their customer [subscriber] relations.

Telecommunications are changing rapidly. 3G is changing the infrastructure and so the way people interact with their surroundings. The service provider is indirectly facing the problem with high costs in setting up the network, which is built by the Network Provider. As always, the subscribers are the source of income, (along with advertisers and sponsors), but since the products/services are similar among competing service providers the focus is on how to create a long lasting relationship with the subscribers. Furthermore, this relationship must be manageable in a cost-effective manner. CRM makes this focus possible and, if implemented correct, will manage the relations cost-effective (Storbacka & Lehtinen, 2000; [1]).

When service providers put more focus on subscribers, the CRM systems are important. These systems are generally referred to as CRM systems but there is more to CRM than just a system. In order to implement a system, the service provider must have a strategy that will serve as guidance to what kind of system that service provider need (Storbacka & Lehtinen, 2000; [1]). Within this area of knowledge the strategy is for example about how the service provider should regard their subscribers – asset or partner, and type of communication – one-sided or interactive. There must exist an idea of how to benefit from a system; what kind of problem the system will help solving.

1.2 Purpose

Our purpose with this thesis is to see how CRM could be used for a point of contact in 3G by a service provider. We aim to deliver a design proposal.

1.3 Target group

The target groups are Ericsson Microwave employees, service providers, and consultants who are interested in CRM for the mobile Internet but have no earlier experience in this area.

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[1] L. Samuelsson, personal communication, January 9, 2001

We believe that this thesis will provide them with a basic understanding of the requirements for CRM when setting up a point of contact in the 3G mobile Internet.

1.4 Presentation of the problem

The area of the problem is based on some sub areas:

- A relation between a service provider and a subscriber is created and maintained in a point of contact.
- In order to be cost-effective, the relation must be able to be managed by the subscriber through self-care.
- Are there any special circumstances regarding 3G that must be taken into account when managing a customer relation?

This leads us to the presentation of the problem: ***How should a service provider set up a point of contact in order to manage customer relations in the 3G mobile Internet?***

1.5 Earlier work

As far as we know, there have not been any earlier studies in this particular field of interest. We base this assumption on literature survey and scanning official CRM sites on the Internet.

1.6 Delimitation

The actors in the mobile Internet are operators, service providers, content providers, content brokers, subscribers, and the users[2]. The relationship under study here, is one in which a subscriber buys services from a service provider (Figure 1).

[2] L. Samuelsson, personal communication, January 9, 2001

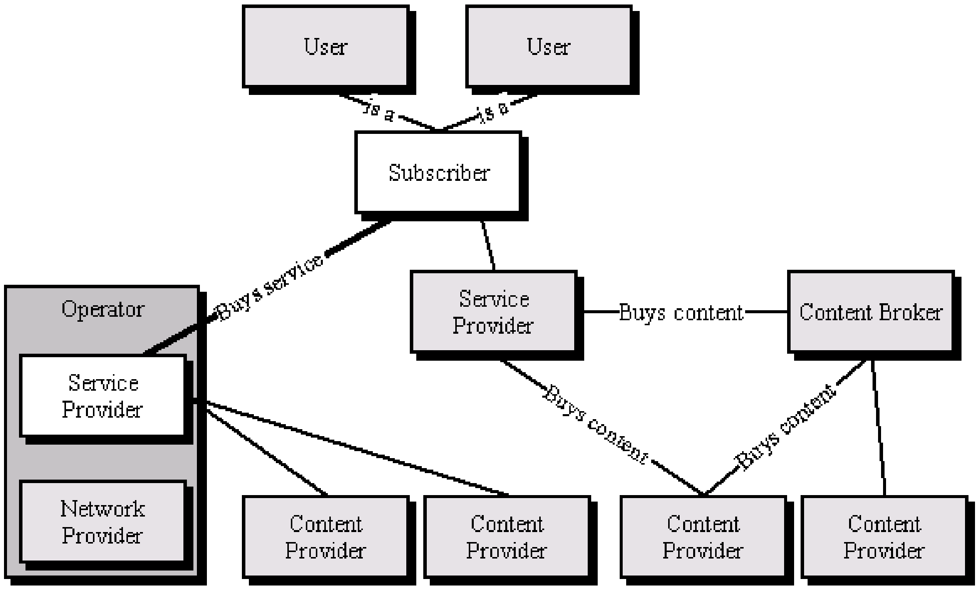

Figure 1. The relationship between service provider and subscriber[3].

Ericsson identifies three major components of a CRM system[4]. They are analytical CRM, operational CRM, and collaborative CRM. Analytical CRM is basically applications that help an enterprise to analys data and help them to understand their customers. Operational CRM is focused on increasing efficiency of customer interactions through applications like sales force automation, campaign management, call center management, field service support etc. Collaborative CRM consists of applications that support interactions with customers through Call Centers, WEB-portals etc. Our area of interest is collaborative CRM.

An important issue is how to assure security when dealing with an Internet based point of contact. We are however not dealing with this issue in this thesis.

Nor do we describe the storage, analysis, and retrieval of data in a data warehouse.

We do not describe how the technical, or practical, implementation of the point of contact is being done either.

1.7 Hypothesis

We believe that the point of contact should be customised to suit the customer's preferences. The point of contact should be Internet based with flexible functionality depending on which communication device is being

[3] L. Samuelsson, personal communication, January 9, 2001

[4] R. Melin, personal communication, April 20, 2001

used. All communication between a company and their customers goes through the Internet based point of contact.

1.8 Expected results

We expect to come to the conclusion that the creation and maintenance of customer relations can be fully automated in the point of contact. But it is also our belief that the customers want to have a personal contact. When setting up a point of contact the service provider must therefore take into consideration giving their customers the option to choose channel for communication.

We intend to identify critical success factors for 3G service providers in how to interact with their subscribers through the point of contact.

Last, but not least, we will recommend how Ericsson Microwave can proceed in order to get the whole picture of CRM in telecommunications.

2 Method

2.1 Approach to research

We have conducted a qualitative research. We were interested in what people in the profession had to say about our problem at issue. A qualitative approach implies study how people perceives and interprets the surrounding reality. In a qualitative perspective people are seen as a part of the surrounding, having a subjective view. In a quantitative perspective the different subjective views are put together, quantified, in order to provide an objective view.

Backman (1997) says that the qualitative perspective focuses on the individual. Instead of asking how an objective reality look like the researcher ask the individual how she interprets and forms her reality.

2.2 Our process for research

We have developed our own method for writing a master thesis. We were influenced by Backman's process for research (Backman, 1997, p. 50), but the method we came up with is different in approach, see Figure 2. We had an idea of what the answer were, and that is critical for this approach.

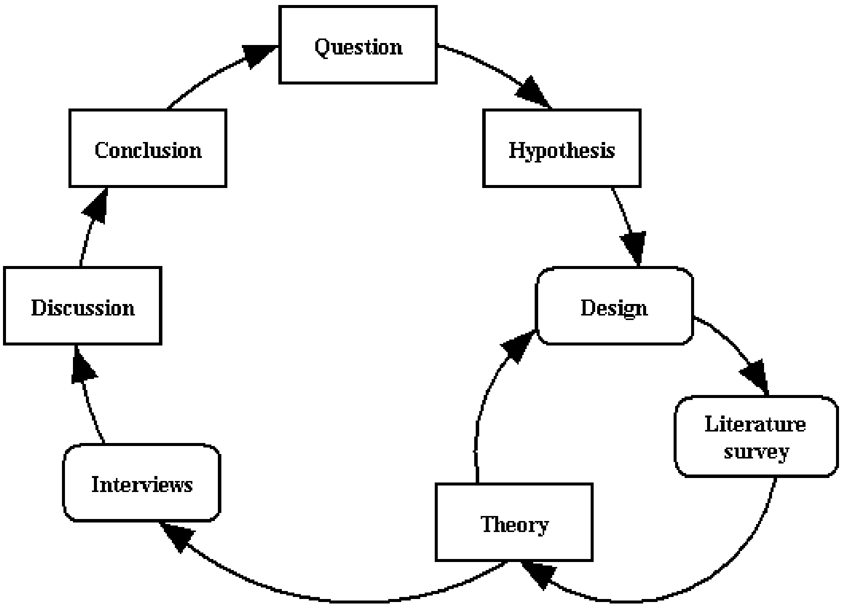

Figure 2. The Wahlin - Aldervall qualitative research process.

The steps we took are:

2.2.1 Question

The research starts off with the question. The common questions are usually based on "how" and "why". Since the question implies what is being investigated, it is also the basis for the area of research.

2.2.2 Hypothesis

The hypothesis is an answer to the question, and it provides a starting point for the literature survey. "We think this is the answer to our problem. How should we go about to find this answer?"

2.2.3 Design

In the design phase we determined the structure of the master thesis in order to answer the question, i.e. what theory we needed. The design phase is recurrent depending on whether the theory is adequate or not.

2.2.4 Literature survey

The literature survey is what makes the theory and it shall:

- provide an overview of earlier knowledge
- provide a view of the importance of a problem
- set the front of research
- imply problems (lack of knowledge, contradictions, short-comings)
- be of help when defining terms
- provide methodical suggestions, designs, and procedures
- provide alternatives for interpretation
- generate questions for the interviews

We looked for information about telecommunications, CRM-processes (general and telecom-specific), and customer interaction.

For telecommunications we searched for information about 3G, the business (the service provider), processes, and value chain in order to see where CRM fit in.

We needed general knowledge about CRM, in terms of concepts as well as in terms of systems. That is, CRM can be described as a strategy and as a tool (an application). Besides general information we needed information about CRM in telecommunications.

The third area of interest is the relationship with the customer. How can a company enable the customer to participate in building the relationship? This is crucial since one active party doesn't make a relation. The customer must find an incentive in building the relationship. Here the contact center is interesting.

Last but not least, we searched for meta-information, i.e. information about information.

2.2.5 Theory

The theory provides a base for conducting the interviews. The theory also shows if there is need for further literature survey which implies a change in the design.

2.2.6 Interviews

We conducted three interviews. Our aim was to find people that worked with CRM, preferably within telecommunications. The first person we interviewed was Johan Hellbom at Accenture. He worked in the telecom area, and his field of competence was CRM. The interview took 1 hour. The second person was Marie Eriksson at Ericsson Mobile Business Solutions. Her field of competence was pre-studies and processes for contact centers. The interview took 1,5 hours. The third interviewee was Bearnice Nilsson at Europolitan Vodaphone. She works in a department called after-sales, which has the responsibility for the communication with all Europolitan Vodaphone's current subscribers. The interview took 2 hours.

The interviews were:

- prepared with questions
- limited in time
- face to face
- in the form of a discussion

To conduct the interview as a discussion can feel less pushy for the interviewee, but it can also be perceived as unstructured and time consuming. It is therefore important to stress that the interview is structured, and time limited. We assessed the amount of time we needed for the interview after we finished the literature survey. To conduct the interview face to face is attentive and gives the opportunity to immediate feedback. (Easterby-Smith, Thorpe & Lowe-Smith, 1991).

2.2.7 Discussion

The discussion is analysis and interpretation in one. We started out with analysing the interviews compared to the theory. Then we returned to our question and interpreted the result.

2.2.8 Conclusion

In the conclusion we point at what is the most important result of the master thesis.

2.3 Validity and reliability

Validity implies measuring the right thing and reliability implies that the result can be reproduced. It is our belief that the interviews we have conducted provide both validity and reliability. The interviewees are well informed and experienced in the CRM area and two of them specialised i the telecom business. This satisfies the requirement for validity. We belive that the questions asked are accurate and the answers provide reliability to this thesis.

3 Theory

This thesis is about CRM for service providers within 3G. Perhaps it would be sufficient to describe the theories behind these three concepts, but we want to emphasise certain aspects that we identify as crucial to the overall picture. During our literature survey we have found that one-to-one customer interaction and CRM in many ways are the same thing. But since there are two different terms coexisting we have decided to describe them separately.

3.1 One-to-one customer interaction

We have chosen to begin our theory with one-to-one customer interaction because that is where a relation starts – in the one-to-one interaction.

"Instead of selling one product at a time to as many customers as possible in a particular sales period, the one-to-one marketer uses customer databases and interactive communications to sell one customer at a time as many products and services as possible, over the entire lifetime of that customer's patronage. This is a strategy that requires a business to manage customers individually rather than just managing products, sales channels, and programs." (Peppers & Rogers, 1997, p. xxiii).

The most successful company will not be the one with the most customers, but the one that has the most knowledge about its individual customer's needs. The aim is to keep customers longer and increase the level of business with them so that the lifetime value will be high. In order to compete in a truly customer-driven manner, the one-to-one company must integrate its business functions around satisfying the individual needs of each individual customer – not just marketing, customer service, and sales and channel management, but also production, logistics, and financial measurement and metrics. By using faster and better information technology the company can create a sophisticated database for one-to-one customer management. The company must be able to see whether or not a customer is valuable and, if so whether or not they are remaining faitful to the company. The company sells products or services and, in the interactive age this is done by finding the benefits and the services for each customer that the customer likes. (Peppers & Rogers, 1997).

What make one-to-one marketing possible are three capabilities that IT provides:

- Customer tracking. Computer databases are used to store information and keep track of individual interactions with their customers. A company can handle hundreds of thousands of customers simultaneously, one customer at a time.

- Interactive dialogue. The computer has made interactive tools available.
- Mass customisation. Many businesses can produce customised products or services tailored to the specific needs of an individual consumer rather than to the general needs of a "segment" of customers.

  (Peppers & Rogers, 1997).

Wells, Fuerst and Choobineh (1999) identifies four key elements that allow a company to position its people, business processes, and information systems:

1. **Business process analysis** that involves the identification of customers with whom it is profitable to establish one-to-one customer interaction and whose business processes can be reengineered to accommodate this interaction
2. **Integration and redesign of customer data across the organisation.** Because one-to-one interaction requires a narrow focus on each customer, this strategy must include the collection and accessibility of nontransactional customer information as well as transactional information.
3. **IT-enabled customer interaction** such as the Internet, electronic kiosks, and computer/telephone integration. Manual methods such as person-to-person and telephone must also be supported by automated methods.
4. **Accessibility/transmission of organisational information.** Accessing and distributing data that has been gathered from customers during interactive communication is an important matter. The distribution of this information can be internal (customer and decision support) or external (to the customer). An organisation must consider the type of underlying infrastructure that supports these distribution channels.

3.1.1 Interaction

Internet provides organisations with a powerful means to interact with its customers on a one-to-one basis. An organisation can also develop its own front-end applications, distribute it to its customers and create an interaction via telecommunications software and a modem.

"More and more firms are finding that by using information solutions they can increase the capabilities of their customers to interact with them, and this interaction by itself can provide a powerful bond. In many cases it enables the customer conveniently to perform some of the same ancillary services for himself that the company would otherwise have had to perform for him. A company should concentrate on enabling its customers to perform more and more of these operations, in order to create an increasingly customised, and high-quality, relationship." (Peppers & Rogers, 1997, p. 205 – 206).

Peppers and Rogers (1997) continues by stating that some companies have nothing to offer their customers to make them to want relationships, and a firm that produces a single product, infrequently purchased, is in this kind of situation. In such cases, the firm should concentrate on creating a value stream behind every product sale. Usually a value stream involves some type of service to follow on after the actual product sale, but it could also involve an interaction designed to generate income later from customer referrals.

3.1.2 A learning relationship

The one-to-one company relies not just on information about customers, but on information from them. Dialogue and feedback are vital to a customer relationship driven company. Communication with the customer (rather than communicating to the customer) plays an essential role in the customer-driven dynamic of competition. Each interaction gives the company access to information about that particular customer that would otherwise be completely unavailable

A learning relationship between a customer and a company gets smarter with every individual interaction, defining in ever more detail the customer's own individual needs and tastes. A learning relationship ensures that it is always in the customer's self-interest to remain with the firm that has developed the relationship to begin with. We aren't talking about emotional attachment here, nor do we suggest that a customer's loyalty to any firm will be derived from some sense of obligation or duty. Instead, by establishing a learning relationship, the one-to-one company increases customer retention simply by making loyalty more convenient for the customer than non-loyalty. The learning relationship creates what is, essentially, a barrier that makes it more difficult for a customer to be disloyal than to remain loyal. Reliable, dependable customer retention occurs only when a customer is committed to the company and the best way to ensure this is to collaboratively link individual customer feedback to the customisation of products and services. To allow the firm to customise its sales message, its product features, or its delivery mechanism to fit the individual requirements of a specific customer, the firm must first create some sort of feedback link to end users. The principal driver of a learning relationship's benefit, from the customer's standpoint, is that it saves the customer time and energy in specifying her own individual needs. (Peppers & Rogers, 1997).

When a company gains new knowledge of an individual customer's own specifications or needs, two activities are taking place: The firm is learning, and the customer is teaching. What creates loyalty is the interaction of both these activities. The customer's effort to teach a company, when the reward for that effort is a more satisfactory product or service, is what makes a customer loyal. The customer is, through her own effort, increasing the value of the company, to him. When a customer teaches a firm what she wants, or how she wants it, individually, the customer and the company are, in fact, collaborating on the sale of a product. The more a particular customer teaches the company the less likely that customer will be to defect. (Peppers & Rogers, 1997).

3.1.3 Community knowledge

Community knowledge comes from the accumulation of information about a whole community of customer tastes and preferences. It is the body of knowledge that a one-to-one company acquires with respect to customers who have similar tastes and needs, enabling the firm to anticipate what an individual customer needs, even before the customer knows she needs it. Because community knowledge is such a powerful concept, it is important to stipulate that not everything a customer should know can be derived from other customers. It is the company's responsibility to teach its customers about new technological developments, and how to use them profitably. (Peppers & Rogers, 1997). In other words, customisation is created on the basis of community knowledge.

3.1.4 Integration and redesign

When redesigning customer data, an organisation has two major issues to consider: integrate customer data across the organisation and expand the customer data profile. First, the most effective course of action for integrating current customer data across the organisation must be determined. Two obvious alternatives are to perform a complete redesign or modify the existing data schema. Second, the customer data profile must be extended to include non-transactional data.

Data is often organised by product or account information creating a situation where customers have several identification numbers within the same system. This fragmented view of the customer creates problems when customer support has to access different systems or is forced to refer customers to other support personnel to resolve issues or problems. Organisations must create a single view of its customer information that is accessible across functional lines.

In addition to looking for ways to design for integration, customer data profiles must be expanded. While transaction-based customer information is imperative, expanding customer data profiles by capturing non-transactional related customer information will be vital if an organisation is to interact with its customers effectively. Data in the form of suggestions, complaints, and comments must be included in the expanded customer data profile because this information is what makes customer interaction so powerful. (Wells et al.,1999).

3.1.5 Privacy

Finally, it is absolutely imperative for the one-to-one company to take into account the issue of protecting individual customer privacy. The Interactive Age could easily become the Age of Privacy Invasion. Customers whose privacy is violated – or customers who simply don't feel they have control over their own information – are not likely to become willing participants in any dialogue interactions.

“If your firm is going into the business of creating relationships with customers based on individual information, you need to adopt an explicit privacy policy early on – then publicise it, and use it. The Privacy Bill of Rights should spell out

- The kind of information generally needed from customers
- Any benefits customers will enjoy from the company’s use of this individual information
- The specific things the company will never do with individual information
- An individual’s options for directing the company not to use or disclose certain kinds of information
- Any events that might precipitate a notification to the customer by the company” (Peppers & Rogers, 1997, p. 279 – 280).

Harvey and Marshak (2000) says that customers may want to know how the information is being shared and used. One best practice is to give customers access to their profiles and let them determine what information can be shared and with whom. This give the customer piece of mind and it also helps build trust between the company and the customer.

3.2 Customer Relationship Management

CRM is the way a company approach their customers disregarding what line of business the company is in, or the technology they are using.

The main part of this theory is taken from Storbacka and Lehtinen (2000). When no other author is referred to, the theory is taken from Storbacka and Lehtinen (2000). This is to avoid repeating the reference too often.

CRM stands for *Customer Relationship Management*. This is not a new concept. Ever since relationships between a company and its customers first saw the day of light, there has been cause to respond to the needs and wishes of the customers. What is new with CRM is the ability to handle the relationship with technology. (Nilsson and Sandström, 2001).

Gartner Group defines CRM as

> *”…a companywide business strategy designed to optimize profitability, revenue and customer satisfaction by organizing the company around customer segments, fostering customer-satisfying behaviours and linking processes from customers through suppliers”* (Staffware eCRM Inc, 2000).

Staffware eCRM Inc,(Staffware eCRM Inc, 2000):

> *"CRM software provides the tools necessary to automate, manage and integrate your sales, marketing and customer service operations. Comprehensive systems will also include reporting, web capabilities, product configuration engines and full integration with back-end systems. However, it is critical to remember that CRM is not simply a software tool or technology. Even the most sophisticated CRM system is only an element in the complex process of gaining and retaining customers."*

CRMGuru.com (crmguru.com, 2001):

> *"Customer Relationship Management (CRM) is a business strategy to select and manage customers to optimize long-term value.*
>
> *CRM requires a customer-centric business philosophy and culture to support effective marketing, sales, and service processes.*
>
> *CRM applications can enable effective Customer Relationship Management, provided that an enterprise has the right leadership, strategy, and culture."*

3.2.1 Cornerstones of CRM

Storbacka and Lehtinen (2000) defines three cornerstones of CRM:

1. **The creation of customer value.** In order to create value for the customer it is necessary to understand the value creation process. A relation-focused company aim to increase their knowledge of how customers create value. This knowledge makes it easier for the company to offer their competence to the customer in order to support the creation of value.

   When a company supports their customers in their value creation processes, they must see relations as processes since the relation contains a number of meetings.

   A customer's value creation process is what makes the customer buy a certain product or service. The customer could for example enjoy a big exhibition of furniture where she can get a lot of alternatives and touch the furniture. Furthermore the customer doesn't want to pay too much for the furniture, and she doesn't mind putting the furniture together by herself. This customer might want to repaint the furniture, but doesn't know how. This is where the company can contribute with their competence and tell the customer how to repaint it in order to get a good result. The customer's value creation process will then increase in value from what the company contributed.

2. **The product is a process.** Companies that sells products examines how to add services to the total offering in order to get a better integration with the customer processes. In a similar way companies that sells services are examining how to "productify" their services

so they will be easier to sell. It doesn't matter then, in a CRM view, if the customer is offered products or services. The question in mind is to offer advantages for the customer's value creation process, through the relationship. The relationship is the product, and the process of exchanging actions, knowledge, and feelings creates value.

3. **The company is responsible for developing the relationship.** Companies must not only take into consideration the needs and values of the customers today. It is as important to consider the future needs of the customers. To depend on the customers to communicate future needs is a risky business, since the customer might be content with the current situation. It is not certain that the customer knows what she wants even. Furthermore, to listen to the customer in this situation, there is a risk that the company doesn't develop their skills and so becomes less competitive.

Harvey and Marshak (2000) states that in order to build effective customer relationships, the company needs to:

- Identify the right set of customers to do business with
- Determine effective ways to initiate new customer interest
- Strengthen and maintain relationships with valued members of the existing customer base
- Create customer satisfaction at every organisational customer contact point, including marketing, sales, customer support, and service

"The key activity is to leverage the information gleaned via all customer interactions, which focuses on learning and understanding what customers want and determining how companies can effectively meet each customer's needs." (Harvey & Marshak, 2000, p. 2).

3.2.2 How does one measure the profitability in the relation?

Increased relational value is the measure of success. The relationship value can be increased in three areas (the dimensions of CRM):

1. Exchange of resources in the relationship
2. Structure of the relationship
3. Phases in the relationship

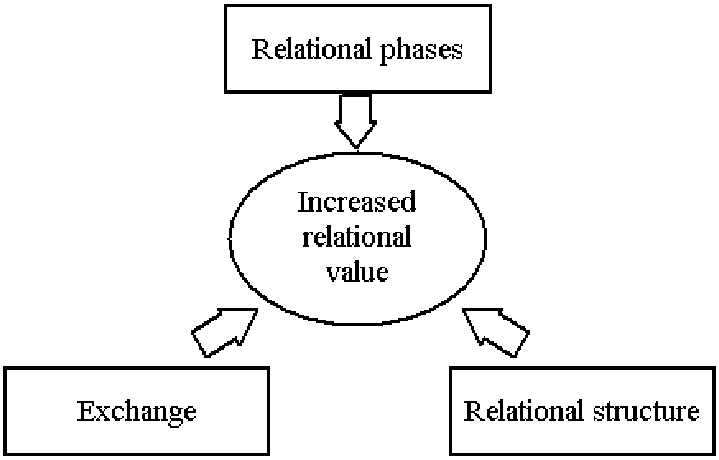

Figure 3. Relationship value can be increased through exchange, structur and phases. (Storbacka & Lehtinen, 2000 p. 32)

The most important goal of management of relations is to increase the relational value. A company should find out how to identify valuable relations in their customer database. Any development should be evaluated on the basis of relational value (Storbacka & Lehtinen, 2000). The customer database can be separated into three different portfolios: protect, develop, and change.

- The protect portfolio contains all the relations that are of high value for the company.
- The develop portfolio contains the relations with a volume- and profitability potential.
- The change portfolio contains the relations that are unprofitable for the company. Unless a dramatic change can be done, the company should consider settle these relations.

A relation can be of value to a company from a number of reasons. Storbacka and Lehtinen (2000) gives some examples, but emphasises that companies and different line of business have their own set of dimensions. In general terms the most important indicator is the relational profit. Other indicators might be: the length of life, referential value, and competence value.

- The customer profit and the relational processes are closely associated with each other. Unprofitable relations are often very complicated and contain a lot of meetings and activities that does not create value. To increase the relational value means to reform the whole relationship. When it comes to measuring the relational profit one must take into consideration the investment needed to start the relation. The relational profit then develops by increasing the relational revenue and decreasing the relational handling costs.

- A customer often has a referential value on the market. The value is affected by the new contacts this customer can provide. Customers that are engaged in the company are valuable, since they originate new relations. Customers are more ready to trust the communication from other customers than from a company.
- The length of the relational life affects three issues:
  1. The length of the relation is, together with the relational profitability, the starting point for estimating the lifelong value.
  2. A relation that has been going on for a time stands on more solid ground due to the bindings the relation brings. (This type of relation can be used in referential purposes.)
  3. When a relation lasts for a longer period, it gives the company the opportunity to develop the relation with tools for managing customer relations.

  ➢ The dominating opinion is that mainly the customer satisfaction influences the length of the relational life (Storbacka & Lehtinen, 2000). Storbacka and Lehtinen (2000) continuos by stating that this is correct only for certain situations. They mean that the length of relational life depends on customer loyalty and other things than customer satisfaction might affect loyalty.
- Within certain lines of business the relational value is determined on the basis of customer competence. Demanding customers that take a lot of time are often valuable since they bring competence into a relation with a company. They also make the company develop new competence and acts in that way as a competence development agent.

Harvey and Marshak (2000) states that “The ultimate value behind assembling data is to improve customer retention and profitability.” In the customer retention space, this is achieved by building brand affinity and recognising churn tendency for each customer.

Analysis can help companies relate key metrics and initiatives to the customer profiling data. Rather than being a separate, isolated activity, analysis should be integrated directly into the company operations and decision-making process. Analysis becomes a cyclical process in which:

- “companies interact with customers and collect their preferences;
- preferences are analysed and then matched to appropriate products, services, and marketing messages;
- after a purchase, sales, support, and service information is incorporated into customer profiling models and then are analysed for future planning.” (Harvey & Marshak, 2000, p. 5).

Harvey and Marshak (2000) continuos on page 5: “The results discovered through analysis can even ultimately drive internal operational processes and customer interactions. This is accomplished by interacting directly with the business rules which provide the overall framework for workflow and decision making processes within Marketing and Sales Force Automation, Enterprise Planning System, and Call Centers.”

3.2.3 The dimensions of CRM

The customer relation is an important asset for the company. The more relations a company can develop the greater their assets are. The purpose of relationship management is to increase the relational value. This is done by analysing the relation from different perspectives and making strategies for developing relations. Storbacka and Lehtinen (2000), describes three dimensions of customer relationship management: Exchange, Relational structure, and Relational phases (Figure 3, page 16).

3.2.3.1 Exchange of resources

The first dimension exchange of resources is about exchanging feelings, knowledge and actions. Relations differ to the extent and ways of exchanging the resources. In order to develop customer relations it is therefore necessary to identify the feelings, knowledge, and the actions that are part of the exchange. This also implies establishing the distribution of work between customer and company. Exchanged resources can be examined hierarchical. The order of importance is the same for customers and companies: the feelings determine the use of knowledge (in order to benefit from information feelings and values are necessary), and knowledge determines the actions. A customer does effective actions only with the right amount of knowledge. Knowledge is connected to information, and as products and services become more complex, the importance of information increases.

The process of understanding the customer’s value creation process starts with analysing feelings, knowledge, and actions. Furthermore, when a company evaluates the opportunities to develop their customer’s value creation process, it is also necessary to evaluate the conditions for the customer to change her processes. Both the company and the customer must be prepared to change the way they do business. For the customer such obstacles might be culture and previous experiences. What makes a company’s business is deeply embedded in the activities and might therefore be difficult to manage.

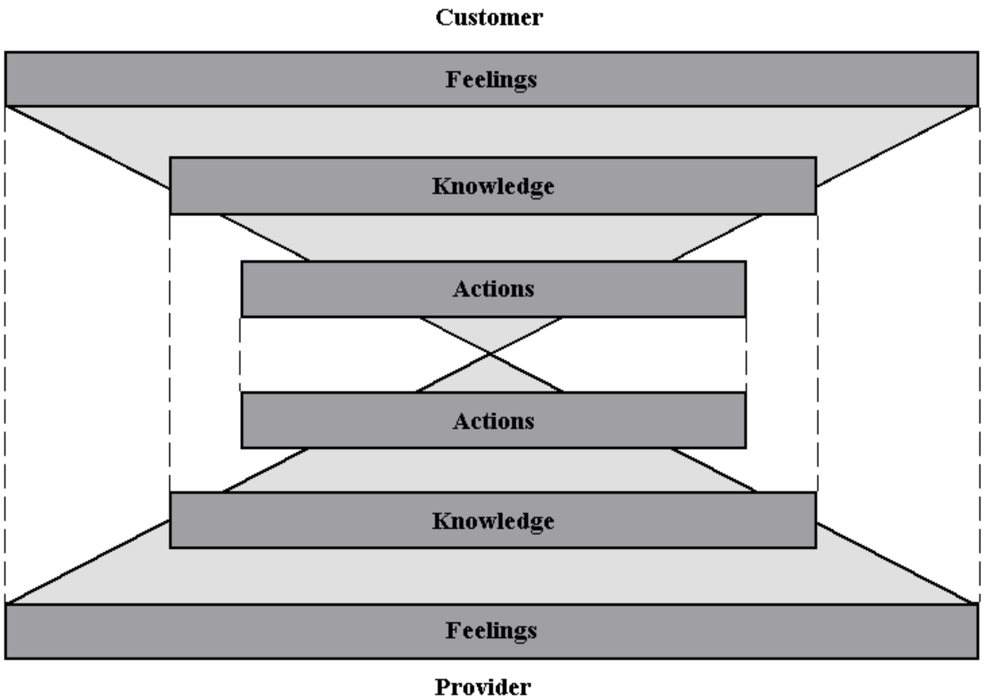

Figure 4. The exchange-hierarchy (Storbacka & Lehtinen 2000, p. 34)

The goal in this relationship is to increase the customer's participation. The ability to compete can be seen as a function. If a company is to be successful it has to handle the exchanges involved in the company/customer relationship in a way that captures a piece of the customers heart, thoughts, and wallet.

Feelings are connected to the heart. The stronger the feelings are in a relation, the stronger the relation. Feelings are difficult to handle since they cannot be divided into smaller, more manageable, parts. Feelings cannot be planned for. A plan can be made for actions that lead to the emergence of positive feelings in the development of a customer relation.

Feelings emerge as a result of the interaction between people, or as a consequence of actions. A company can encourage the emergence, and the strengthening, of feelings by having a dialogue with their customers. This dialogue should emphasise company values and the culture that's been built around these values.

The company communicates their basic values to the customer. As a result the customer draws the conclusion that the company is trust-worthy and puts her trust into the company. This way, commitment is reached.

Companies often offer information to their customers about how to use the products and services correctly, and what core competence the company has. They also inform the customers of how the company's knowledge can provide increased value to the customer's value creation process. This information acts as a manuscript describing the customer's behaviour in the relationship. The information (knowledge) justifies decisions the customer makes. The customer searches for rational explanations as to why to make the purchase, and it is made possible only by having access to the right information about the company and the relations they offer.

A manuscript is thus created for the customer and acts as guidance during the relationship with the company.

A central question that is related to knowledge is competence development. Without for example the company's competence there cannot be an exchange of actions and therefore no customer relationship. It is therefore important to decide what makes up the company's competence, and how it contributes to the customer's value creation process.

Knowledge can increase the value of a relation in those cases where the products are complex. In order for making the customers aware of the opportunity to access the company's knowledge, the company should make the information available to the customers. In this case, knowledge is a two-way street; the more a company knows about its customers and their value creation processes, the more valuable the relation. Knowledge that is stored in a customer database and accessible to both company and customer can be seen as the memory of the customer relationship.

Exchange of resources also means, in a more narrow sense, that a company provides goods in exchange for money. This definition can also be applied in a broader sense to activities. Exchanges often take place during a meeting and the question is then how to divide the work between a customer and a company. To agree on the distribution of work is the core of the provider's profit and the development of the relations with the customers. The role of the customer is thus not only to consume goods but also to participate in the development of the relation. The question about distribution of work can be seen from two strategic starting-points:

1. Making it possible for the customer – Possibilities for the customer to, by herself, do as many tasks as possible that is related to the relationship. An example is self-service.

2. The company takes on a supportive role – The customer is liberated from the tasks. The company does them instead.

The character of the interaction between customers and companies leads to consequences to the value of the relation. The customers get a return on their investments in the relationship and feel that they benefit from it. The company receives resources from the customers correspondingly and also benefits from the relationship. The more both parties' benefits from a relationship, the more valuable it is.

Customers often have the function of references towards other customers and especially potential customers. The referential value can be developed in a variety of ways:

- Placement of the customer in the right context.
- Create value for the customer in the relation.
- Provide the customer with the right information about the company that the customer then can forward to others.

As businesses get more network oriented, the referential value will increase in importance as a measurement. This means that you should pay attention to customers' referential value as soon as a relation has begun.

3.2.3.2 Relational structure

The second dimension of CRM is relational structure. A company's customer database consists of different customer relationships. A customer relation consists of meetings that consist of different activities. All together it represents a relational structure. A customer must be developed at different levels: customer base level, relational level, meeting level, and activity level.

Feelings, knowledge, and actions are exchanged during the meetings between the company and the customer. This exchange requires participation from both parties.

For example, at a hotel there are different relations. A customer might just stay the night, have dinner or participate in a meeting at the hotel. These relations differ from customer to customer, and even from time to time for one and the same customer. In other words the relations differ in the structure.

Every meeting comprise a specific process. Every action in the process can be seen as a part that can be developed separately.

From a management point of view it is necessary to identify the relational structure. The profitability can be determined, customer satisfaction can be managed, and the relation can be improved. When you know what activities that are a part of the relation and the cost of the activities, then the cost of the relation can be estimated. A common misunderstanding when it comes to the profitability of relations is that customers who generate big cash flows are profitable. There is a clear connection between relational volume and profitability, but at the same time it is only those customers with big volumes that can cause so much work for the company that they stop being profitable.

A customer database can usually be divided in three different portfolios:

1. Protect, which comprise all those relations that are of great value to the company. Strategies should be created to protect these customers against temptations from other companies.

2. Develop, which contain a considerable potential for volume and profitability providing the development increases the customer participation and/or simplifies the relational structure.
3. Change, which is the portfolio that contains those customers that are unprofitable, and acquire a dramatic change in order to be profitable. The decision to make in this portfolio is whether to keep or to cut loose those customers.

The greatest potential can be found in the develop- or the change portfolio. Since the amount of unprofitable customers usually is very high, then even small changes will make a difference. To identify profitable relations and confirm why they are profitable is also important because it can provide leads as to how to develop them.

Many companies have identified their core processes. The benefit with these flowcharts is that it makes the co-ordination of tasks throughout the organisation easier. The downside is that the customer is very hard to spot in these flowcharts. From a CRM perspective a flowchart should start with the customers' processes. Then the company's and the customer's processes should be adjusted to one another by the implementation of a chosen strategy.

The aim for development is to decrease the use of resources in relations, e.g. to have fewer activities. Furthermore does new technology allow for the use of new channels, which also can cut costs. A common reason for unprofitable relationships is the unprofitable activities made possible by the companies' strategies. A first step to take is to change activities, or in other words to change strategies.

The handling of meetings is an operational issue. The goal is to make the meetings as effective as possible and make them generate value. This means considering the distribution of labour between customer and company, the importance of specific process activities, the order and quality of meetings, both from the company's and the customer's point of view.

Three factors that influence the meetings' possibility for success is the customers' feelings, actions, and knowledge, the company's employees activities that influences the realisation of the relational strategy, and every meeting is taken place in a physical setting. The physical setting can be called the point of contact.

A code is being implemented into the relationship that directs the activities that occur within it (pre-coded activities). This code can be based on information such as instructions or agreements. The code can also be based on feelings such as values and standards that direct the activities. This code is called the manuscript of the customer relationship. Every human resources has their own manuscript. The more experienced a person is, the more complex is the manuscript and the parties are less aware of the existence of a code. This means that the more experienced a reader of manuscript is, the harder it is to change her behaviour.

Apart from pre-coded activities there are situation-dependent activities. No manuscript can cover unpredicted events during a meeting. These types of activities must be invented as they occur. The importance of feelings and values cannot be stressed enough in situation activities. Situation activities can only be handled on the basis of mutual values.

Learning is an essential part of customer relations. In this case learning means writing down the unpredicted events into the manuscript, in other words to transform them into “relational codes”.

The term point of contact should be given a broad interpretation. Besides the present physical surrounding it also includes the interface between the customer and the company. Everything that the customer can sense is part of the point of contact. The point of contact directs the customers’ possibilities to execute their own tasks during a meeting. By refining the details in the landscape it is possible to influence the actions of both customer and company. The steering mechanisms are based on information and feelings and they can be either explicit or implicit. The point of contact is important when it comes to increase the value of the customer relation.

These points of contact vary and can be an invoice, a telephone call, a web-site and so on. Wherever a contact is made a point of contact is established and a relationship is being affected. There are three types of point of contact (Storbacka & Lehtinen, 2000):

1. Extraordinary meetings that don’t happen too often and where the big decisions are being made.
2. Recurrent meetings that vary with for example season.
3. Routine meetings that happens on a continuous basis and doesn’t require a complex decision-making process.

When it comes to extraordinary meetings the relationship is important to the customer and she is open to new ideas. The customer is prepared to make the effort to develop the relationship. In this relationship the customer is more aware of her own processes and considers them consciously. She is therefore more sensitive to arguments that are founded on facts, and she will not be blinded of preconceived ideas.

On other occasions the customer makes only routine decisions and she is not willing to spend too much energy on thinking about the relation. The customer makes the decisions out of convenience and excludes too much information that will only confuse her. The amount of information only makes it more difficult to make a decision.

In order to increase the relationship value it is important to identify the type of meetings in which the customer is willing to consciously work on developing the relationship. The actions taken will then be effective and will not irritate the customer. (Storbacka & Lehtinen, 2000)

3.2.3.3 Relational phases

The third dimension is relational phases. The phases are creation, development, and termination.

To create a relationship means to reach an agreement. Agreements often arise informally, for example the nod from a door-keeper when you enter a restaurant. Sometimes agreements are in writing in the form of contracts and are very detailed.

What is it that starts a relationship? What is the first thing to draw attention? Every little reason to start a relationship contains information, since without it the relationship cannot arise. This information must be interesting and come from a trustworthy sender. To exchange feelings and knowledge is especially important with the creation of a relationship.

Campaigns and mass marketing are often carried out under the assumption that they are the only effective way to communicate with a large amount of customers. The main problem is that people are being exposed to a large amount of messages and since no one can digest all that information they tend to reject messages automatically. This can only be solved in one way: the amount of messages per person must decrease. A way to do this is to identify when people are open to messages. When people will add value to their existing value creation process, then it is a good time for marketing. It is therefore necessary to identify these moments when people are interested in what you communicate, and to try to deliver the message just before the interest arise. This calls for extreme knowledge about your customers. These peaks of interest often returns in cycles, and there are year cycles, month- and even day cycles.

To create customer relations a company can use marketing against interest groups at the customer base level, spearheads on the relational level, and the management of new customers on the meeting level.

Members of an interest group share an emotional binding, and the aim is to use the customer's emotional binding to sell a product or service.

One or two spearheads, or the company's knowledge, can be what get a relation started. Customers often want to take their time in a relationship and, together with the company, learn from experience and from there develop the relationship. Customers often hesitate to make decisions when companies present relations that are too extensive.

The first impression is the most important factor in a new relationship, and therefore the first meeting should be paid extra attention. It is important that the customer experiences value in the relationship and having chosen the right company to interact with. It is however important to inform the customer how to improve the relationship. The manuscript will guide the customer who then should not end up feeling insecure in the relation.

Support systems are of outmost importance when dealing with new customers.

It is difficult to influence the customer’s commitment. Companies can however in a systematic way create bindings with the customers. The existence of the bindings allows a certain amount of dissatisfaction without threatening the strength of the relationship. Bindings can arise as a result from actions, knowledge (cognitive bindings) or feelings (affective bindings).

Customers, who intend to end a relationship, consciously or unconsciously, send signals to the company. It may take the form of decreased interaction, decreased buying volume, or spoken intention of ending the relationship. The number of complaints can be another warning sign. It is of outmost importance to identify the signals of problem that occur and to analyse them in order to take action. By analysing ended relationships a company can identify the problems within them. This analysis can then be used to identify potential problems in the existing relationships.

Storbacka and Lehtinen (2000) states that time is a critical resource in a relationship. Since time cannot be stored, speed becomes an important factor for competition. The use of time in customer relations must therefore be seen as a critical resource. This is especially true for the development of high tech goods and installations.

CRM is based on the assumption that value is created in the customer process. It is therefore no longer a question about whether the relationship implies an exchange of products or services. The relationship in itself is the product. As a result of an exchange of actions, knowledge, and feelings in the relationship, the customer produces value for herself.

3.3 Information

We include theory about information since it is what is being communicated in a relation.

Evans and Wurster (1997) are talking about an explosion in connectivity. People are communicating electronically using universal, open standards and this leads to changes in the way people interact. This effect is ongoing, triggered by new technology. The information being communicated are the same though, and consists of interactions and transactions (Harvey & Marshak, 2000). The difference between interactions and transactions is that a transaction is a specific type of structured interaction. An interaction is a broader category that includes unstructured conversations, communications, and structured transactions. Interactions can capture the mood of the customer, preferences, attitudes, and relevant information to address his or her issues. Transactions are related to data generated from customer actions (Harvey & Marshak, 2000). Interaction is seen as richer than transaction in the sense that the information tells you more about the customer. On the other hand transaction information is easier to obtain and analyse. Interaction information is generally seen as rich and tacit while transaction information has the reach and is codified.

3.3.1 Type of information

Every interaction with a customer is valuable since these interactions allow the opportunity to capture the four basic forms of customer information: sales information, customer preferences, customer facts, and business events.

- "Sales information consists of information about what products the customer has purchased, the amount of money the customer has spent, contact information, credit information, and other data surrounding the purchase of a product or service.
- Customer preferences reflect customer likes and dislikes. Sometimes they are related to product purchases, sometimes they're not. Preferences can range from liking the colour blue to owning a Chihuahua to using UPS as the preferred delivery method. This information can be collected from the web, from customer support and telemarketing representatives, or from anyone in the organisation who has contact with the customer.
- Customer facts and life events are specific pieces of information about the customer. Facts include things like birthdays, holidays, anniversaries, a job change and the type of car the customer drives.
- Business events include information about customer service calls, complaints, and any other formal interaction with your company that results in action being taken, as well as time-specific information like maintenance and upgrade dates or contract expiration dates." (Harvey & Marshak, 2000, p. 3).

3.3.2 Reach and richness

Evans and Wurster (1997) gives an explanation to reach and richness of information: "*Reach* simply means the number of people, at home or at work, exchanging information. *Richness* is defined by three aspects of the information itself. The first is *bandwidth*, or the amount of information that can be moved from sender to receiver in a given time. The second aspect is the degree to which the information can be *customised*. For example, an advertisement on television is far less customised than a personal sales pitch but reaches far more people. The third aspect is *interactivity*. Dialogue is possible for a small group, but to reach millions of people the message must be a monologue."

Evans and Wurster (1997) continues by saying that the rich information has been limited in reach due to costly channels. The communication to a large audience has required compromises in bandwidth, customisation, and interactivity. The development in electronic communication will make possible richer information to a broader audience.

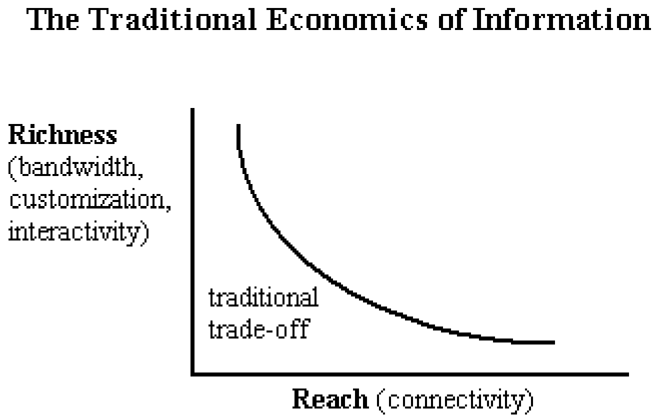

Figure 5. Traditional Economics of Informtion, (Evans Wurster, 1997)

"Customer interactions at a computerised cash register, for instance, or at a video kiosk in the mall, have the potential to carry a richer, faster exchange of information than even a phone conversation between two people, because both the communication line and the dialogue interface can handle a faster flow of information." (Peppers & Rogers, 1997, p. 258).

3.4 Process

The process gives structure to customer relationship management in a company.

Rentzhog (1998) divide the interpretation of process into two areas – the engineering and the sociology. From an engineering point of view the process is seen as a standardised series of repeating activities that transforms input to result. The purpose is to optimise the process and keep it under control. Processes are seen as structured and static. In sociology on the other hand, the process is seen as the phenomena of change over time. The process is seen as dynamic with lack of structure and is not necessarily repeated over time.

It is the customers that gives the justification of the process and therefore should control the result and content. The approach to processes implies that one should see its own business from the customers' perspective. To understand the customer's real needs, how these can be satisfied, and how well one succeeds, are important issues for successful process management. To be able to understand the customers' real needs it is seldom satisfactory to ask the customer. Instead it takes active collaboration with the customer to understand how the result from the process is being used and what the customer expects. In order to develop the process it takes some sort of regular feedback on how well the customers' needs have been satisfied. (Rentzhog, 1998).

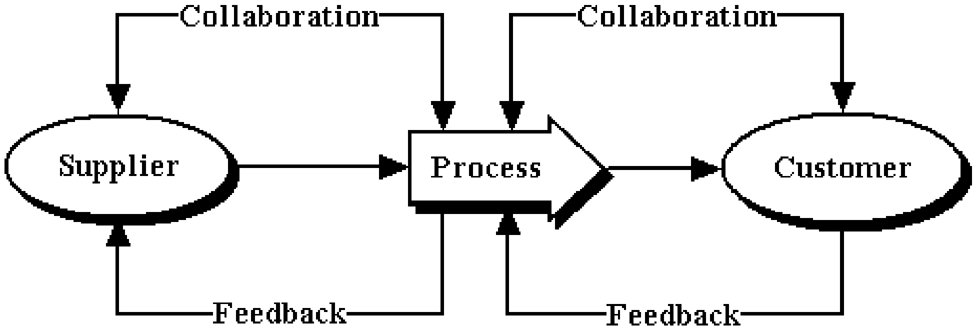

Figure 6. Rentzhog's (1998) customer/supplier-model p. 26.

In order to get a complete view of how a CRM-solution would fit into a 3G service providers business we have to look at what underlying processes there are in a 3G business. Processes can not only be oriented towards customers. Not all assignments can be processed at the touch point of the client but have to spread down to and within the organisation (Lind, 2001). There are processes that enable the service provider to produce a product or service. These processes are the bases on which the service providers build their business and any additions to a service provider's system portfolio must support these processes. The TeleManagement Forum, a consortium of companies within telecommunications working to develop an industry standard, has identified a number of processes that are essential for a Telecom service provider. We will focus on those that directly involve the interface with the customer.

The processes dealing with customers in Telecom Operations consists of:

- Customer Interface Management, this is the process of interacting with the customers, handling of inquiries, registration of requests, redirecting to appropriate party's, logging of customer contact and initiation of other underlying processes such as order handling or problem handling. This process starts with customer contact and ends with customer contact.
- Sales, includes customer needs assessment, customer decision to buy, educating the customer about the services offered. Also includes collecting customer information and requirements in order to process the order, provide support and bill the customer.
- Order Handling, the process to accept and execute customer orders. The order can be a new order, a change order or a disconnect order. This process may consist of customer information collection, initiating and receiving credit checks, pricing estimates, preliminary feasibility requests, tracking of order progress, progress report to customer and follow-up on service performance (to ensure that the

service is functioning and the customer is satisfied). Starts with a customer order and ends with order completion and an updated customer record.

- Problem Handling, receives service complaints from customers, resolves the problem and provides status information on repairs. Problem Handling must also be aware of any problems the network or technical systems detected. The process informs customers of relevant service-affecting problems and ends with logging of all final information to enable the generating of outage credits on bills and information retrieval.
- Customer Quality of Service [QoS] Management, monitors, manages and reports service levels, usage patterns and network performance as well as order completions. Responsible for notifying Problem handling and Service Quality Management on Service Level Agreement (SLA) and QoS violations.
- Invoicing and Collections, encompasses invoicing and collecting customer payments. Handles' billing inquires and resolves billing problems. Starts with Order handling and ends with billing and collecting.
- Market Fulfilment; campaign execution, lead tracking and management, campaign response collection and reporting; provides information about products and services in response to customer and prospects inquiries.
- Retention and Loyalty, all functions that are related to retaining customers are part of in this process.

In addition to these processes there are underlying processes which deal with service development and operations and network and system management.

(TeleManagement Forum, 2000b).

3.5 Value chain

A company cannot provide everything that is needed to deliver value to the customer. Instead, a number of companies from different line of business form an alliance with supplementing services and/or goods.

In general terms a value chain consists of primary activities that creates value for a given actor, and supporting activities to the primary activities. In a relationship there is two sets of value chains, in this case the customers value chain on one side and the companies value chain on the other.

The value chain, developed by Porter, can serve as a model to understand how an organisation can produce value for its customers. Porters value chain consists of five primary tasks and four support activities (Robson, 1997).

The primary activities: inbound logistics; operations; outbound logistics; sales & marketing and services, are those who have direct relationships with the customers. The four supporting activities: Administration & infrastructure; human resource management; product/technology/development and procurement, makes the primary activities easier and have only an indirect relationship with the customers.

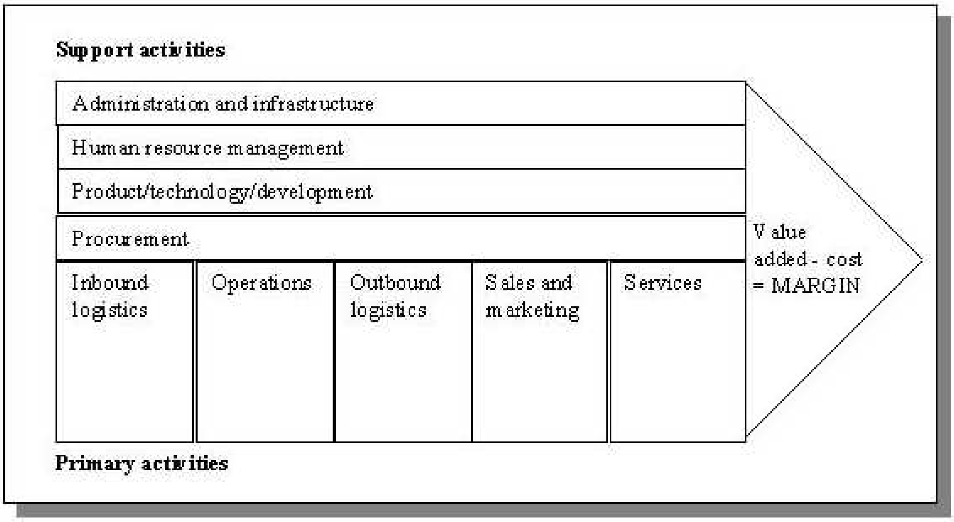

Figure 7. Porter's value chain as presented by Robson (1997).

The value chain models the flow of activities that add value by contributing to customer's willingness to 'buy' the product (ibid). When the specific company's value chain is identified, the company has to assess the efficiency of each activity and look for potential improvements. This way the organisation can enhance it's competitive position.

Porter developed the value chain further into the concept of the value system. The value system models the entire industry or business that an organisation is a part of. By viewing the company as a part of a larger system that includes suppliers, customers and perhaps competitors a company can asses where cost can be cut and value can be added to the end customer (Robson, 1997). A value system view can ensure that value is brought to the end customer and not just transferred within the system.

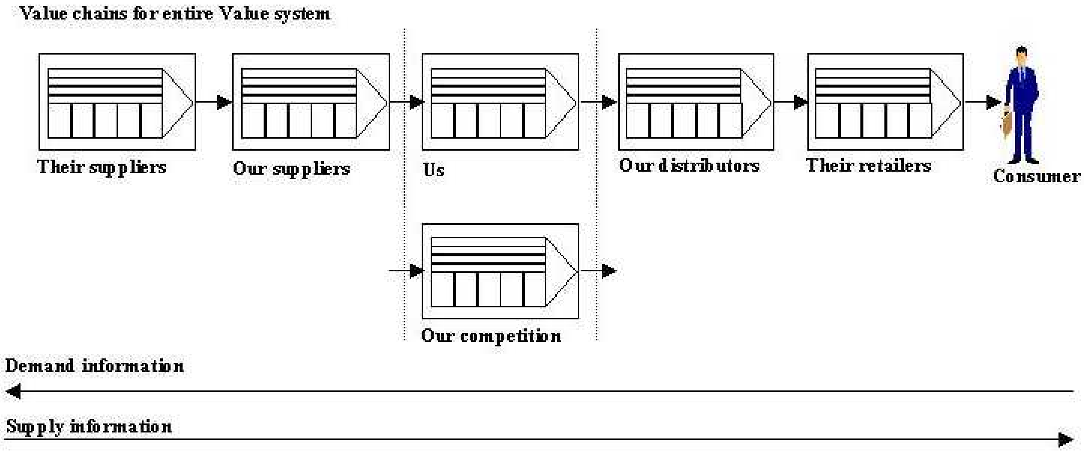

Figure 8. Porter's value system concept. Adapted from Robson (1997).

Mattison (1997) has proposed a generic telecommunications value chain based on the different functions in a telecommunications firm. This telecommunications value chain aims to provide a first level of understanding of the telecommunications company's knowledge infrastructure and potential knowledge management needs. We examine it in order to assess whether there is any special circumstances in the telecommunications industry that we need to address.

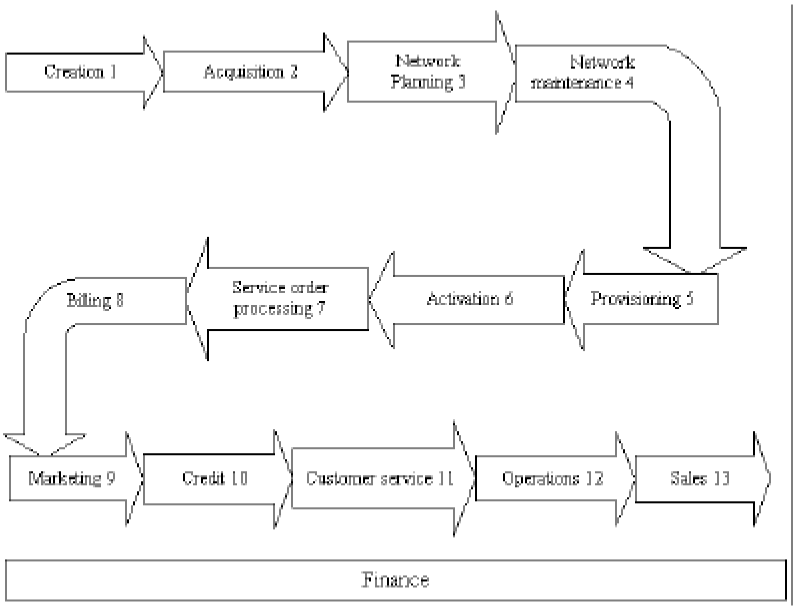

Figure 9. Mattison's (1997) Telecommunications value chain

- Creation is the process of identifying and creating new kind of products and services to meet customer needs. This process needs information about customer activities and consumer trends.

- Acquisition is the process of acquiring the ‘right to do business’. This includes obtaining a licence from the government for most parts. A telecommunications firm has to ‘fight for the right’ to obtain and keep the permission of doing business.
- Network planning incorporates the decision of where to lay cables, switching stations location, what equipment to use and everything which needs to be built to produce a phone system. In this process the company needs to estimate usage and bandwidth requirements.
- Provisioning is to set up a customer’s service. A telecom firm has to prepare its systems and networks in order to provide a service. This includes billing systems, network switches and external providers interfaces.
- Activation brings the individual customer’s service alive.
- Service order processing. When the processes of activation, provisioning and network maintenance becomes large and complex, some company’s creates the task of service order processing. This process encompasses all these processes and documents and drives the processes.
- Billing track customer activities, invoices customers and collects customer payments.
- Marketing – encompasses everything from advertising through customer identification and pursuit to channel development & management and product creation.
- The Credit link in the value chain includes credit risk estimates and the decision to allow a certain amount of credit to a customer. This is a major component in the cellular business.
- Customer service deals with customer complaints, information requests and resolves billing problems and other requests.
- Operations include different things for different companies. In some companies it incorporates network infrastructure development and maintenance, in other customer services, billing, sales and marketing. The use of the term is company specific.
- Sales is responsible for expanding the market and penetrating the existing market even further. Sales is tied tightly to customer service and marketing.
- Finance is a support function in a telecom firm. Finance supplies information to the other functions but is not a critical deliverer of value to the customer function.

(Mattison, 1997).

Which of these functions that a telecommunications firm focuses on differs depending on which type of customer the firm targets and the firms maturity and what line of business it is in (e.g. cable services, long distance services, cellular services, etc.). A start up firm will find themselves investing heavily in the creation and acquisition processes. (Mattison, 1997).

Buttle (2000) has developed the CRM value chain to help companies develop and implement their CRM strategies. The purpose of the Buttle CRM value chain is to ensure that companies build long term, mutually beneficial relationship with it's strategically significant customers. The five steps according to Buttle are; customer portfolio analysis; customer intimacy; network development; value proposition development and managing the relationship.

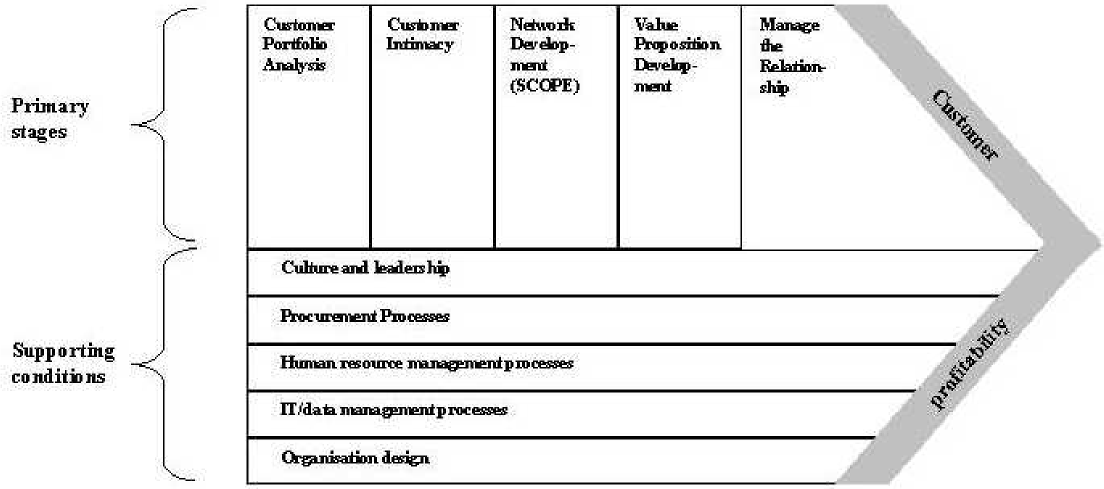

Figure 10. Buttle's (2000) CRM- value chain

- *Customer portfolio analysis* is the process to investigate and choose what type of customers the company has today and what type of customers they want in the future. A company which has no current customers on which to base their analysis can use segmentation approaches to identify potential strategic significant customers.
- *Customer intimacy* is the process of understanding the questions of who, what, why, where, when and how in customer behaviour.
- *Develop the Network*. The network consists of the company, the employees, the suppliers and owners/investors that are working together as partners to create value for the end customer. If the end consumer is understood through the whole supply chain this network and all chains in the network are strengthened the network can create a great competitive advantage.
- *Value proposition development* is the development of a package that adds value to the basic product. These can be services offered along with the product and include the way in which customers are dealt with when

the company is interacting with the customer, for instance when it's dealing with a customer complaint.

- And finally, the company has to *manage the relationship* and everything that is required in respect to processes and structures. Buttle recommends companies to develop a customer acquisition plan, a customer retention plan and a customer development plan instead of a single marketing strategy.

3.6 Contact center

The contact center has the operational responsibility to manage customer relations.

With the development of new technology an increasing number of companies are migrating their old call centers into contact centers (Davox Corporation). This move is mainly driven by the growing customer expectations as competition grows and customers become accustomed to interact in numerous ways with companies. Traditionally call centers has handled inbound and outbound telephone calls to service customers but today's contact centers are forced to include multiple channels such as fax, e-mail, web and video. A contact center has to address customer inquiries in any format (Davox Corporation, 2000).

The movement towards contact centers should not only be considered as an increasing cost for the companies, the contact centers can be used to derive more value from the relationship with the customers (Davox Corporation, 2000). Furthermore, a new channel can present an opportunity to give a more informed and appropriate response (Genesys, 1998). If, for instance, a customer sends an inquiry by e-mail the contact center can prepare an answer and perhaps enclose an electronic information leaflet (e.g. a .pdf or word document) with further information in the reply to the customer. A 'blending' of multiple media types also creates an opportunity to let staff at a contact center have a more varied workload. The contact center personnel can perform asynchronous communication tasks, like replying to e-mails, while they are waiting for more synchronous communication like phone calls and chatting with customers over the Internet (Genesys, 1998).

The web is proving increasingly important when it comes to empowering a company's customers. Besides giving customers a convenient interface to collect information it can take a load off customer service representatives and provide cross-sell opportunities. Genesys has identified a few functionality's that a site should provide to aid and empower the customer:

- **Self-service** lets the customer purchase a product or seek information on-line. Self-service is business specific and requires integration with back office applications.

- **Self-help,** allows a customer to obtain answers to her own questions. In it's simplest form it is a list of Frequently Asked Questions (FAQ). More capable tools provide context-sensitive help, detect user problems and automatically suggest solutions.
- **Assisted Help,** when even the most advance self help fails in providing effective help to customers they will need human assistance. Assisted help can be provided through e-mail, chat, Voice over IP [VoIP], co-browsing, videoconferencing, application sharing etc.
- **Interactive Web Response,** An Internet site can have functionality similar to an IVR, which is typically used to collect information about a voice caller or provide rudimentary self-service functionality. If an Internet customer requires assistance from the contact center, the Web pages (URLs) that the customer has visited as well as any other essential information can be collected and given to the contact center as "attached data". Furthermore, this information can be used to determine the skills required to adequately address the customer's inquiry. Due to its similarity to an IVR, this capability has been coined IWR – Interactive Web Response. Though, in essence, an IWR embodies the entire functionality of the Internet site, the process of collecting data relevant to the customer's inquiry is the most directly analogous to its voice counterpart, the IVR.
- **Open Contact History,** if a customer is able to se its contact history, with all its open and closed cases and perhaps even create a trouble ticket on her own, a workload can be removed from the contact center. More importantly it can give the customer immediate feedback as to the status of their inquiry without having to call the contact center to find out the status of their case.
- **Proactive Support and Cross Selling,** an example of proactive support can be to send a notification to a representative when an important customer has submitted an improperly completed form. This would give the contact center the opportunity to help the customer while she is still on the Internet. An example of cross-selling might be to approach a customer and ask 'may I help you' if she has remained at a specific Web page for a long time or browsed a series of related pages.

There are a lot of techniques that a company can use in order to communicate with its customers for example through chat or VoIP and there are many opinions on which of them one should use. Chat and text-conferencing don't require special hardware, VoIP on the other hand offers the preferred real-time communication by voice (Genesys, 1998). Genesys feels that the right way to go is to give the customer the choice. The channels mentioned by Genesys are

- **Telephone**, there are the options of either just presenting the contact center telephone number or have a 'call-me-back' button which gives the customer the opportunity to request a phone call from the contact center.

- **Co-browsing and application sharing,** co-browsing offers the capability to 'guide' a customer through the Internet site and perhaps even help customers fill out a form with more advanced applications. Application sharing enables the customer and the contact center to view and manipulate an application simultaneously.
- **E-mail** is used increasingly by customers to communicate with their suppliers. Customers who send e-mail can get a precise response without having to wait online while the question is being redirected to the appropriate person.
- **Voice over the Internet Protocol (VoIP),** using VoIP, enables the customer to speak with the contact center without having to disconnect from the Internet to make a call.
- **Chat** is an excellent tool when the customer don't have two phone lines or cable access to the Internet and don't have a microphone and speakers to allow VoIP. A plus with chat is that it gives the contact center the opportunity to invoke text analysis capabilities and suggest responses that automatically can be inserted into a chat session.
- **Videoconferencing** requires that the customer has a camera connected to her computer and there is still a lot of work to be done with the issue of signal quality. Furthermore many customers might be reluctant to have their face transmitted across the Internet. A solution can be to supply one-way video-conferencing where the customers can se the person at the contact center but the contact center does not se the customer.

As we wrote earlier, e-mail is increasing in use. Beresford (1999) sees shortcomings in how incoming e-mail is handled by organisations today and suggest the following as best practice:

a) Issue an auto-acknowledgement at once.
b) Use an auto responder to suggest a possible answer to a human agent. However beware of *humour* and *sarcasm*. These two attributes can grossly mislead an email robot.
c) Have "click and drag" paragraphs available to be drawn into the email.
d) In some circumstances get the contact center to suggest a phone call (if the customer is willing) rather that be drawn into a long series of email exchanges.
e) Above all, <u>be fast</u>. Good organisations (such as SEB in Sweden) handle 90% of emails within 2 working hours, and want to be faster... Certainly for daytime a response within 2 hours is probably a maximum for good quality service.

Peppers and Rogers (1997) have categorised interactions with customers into media and content. The media might be something as simple as a telephone call or face-to-face interaction. The content might be an inquiry or request. A limitation with company and customer interaction over the phone as well as interaction face-to-face is that it is not as easy to keep track of these interactions as it is with electronic encounters (Peppers & Rogers, 1997). The company has to make sure that its employees capture the key elements in this information and stores it in the company database so that it is kept in the corporate memory, regardless of the interaction media. The media's identified by Peppers and Rogers are:

- *Print and mail:* printed material such as postal mail, catalogues, brochures, print ads with response devices, and coupons
- *Telephone (voice):* inbound and outbound voice based phone calls.
- *Telephone (nonvoice):* facsimile and data transmissions
- *On-line hosts:* Web sites, Internet, CompuServe, and other similar systems
- *Direct, face-to-face:* personal sales visits and meetings
- *Point of purchase:* kiosks, card readers, and computers at cashier stations
- *Wireless:* pagers, Personal Digital Assistants (PDAs), cell phones

The content is divided into

A. Customer-initiated interactions:
   - Orders and payment for products and services
   - Product or service specification
   - Inquiries and requests
   - Complaints or disputes
   - Fan letters

B. Company-initiated interactions:
   - Order fulfilment and product delivery
   - Invoicing, billing
   - Selling, persuading, promoting
   - Informing, educating, benefiting

The important thing in this context, according to Peppers and Rodgers, is to communicate with the customer in *her preferred media. " …your goal should be to accommodate as many different ways of interaction as your different customers might desire"* (Peppers & Rogers 1997 page 277).

Technology and innovation will certainly bring new channels of customer contact. Genesys predicts that pagers, cell phones, and Personal Digital Assistants will be used increasingly to communicate with customers and conclude, *"A good customer service solution should be flexible enough to accommodate new channels of communication"*. It is not necessary to supply all channels of communication that is technically possible, but it is necessary to offer the channels that the customers demand, and for that you must have a flexible infrastructure that can be adapted to customer demands (Genesys, 1998).

3.7 Telecommunications

This thesis is for CRM in telecom, so we describe the relevant areas within telecom.

We have previously in the theoretical section investigated the basics of Customer Relationship Management, the processes that is connected to the customer in telecommunications, different views of the value chain and what generally is required of a contact center. Here we examine the nature of the mobile Internet to find out whether this new technology will put any new requirements on the service provider.

3.7.1 Third Generation Mobile Communications (3G)

There are a lot of techniques and standards associated with the third generation (3G) mobile phone system of which some are used interchangeably. Some that are mentioned are UMTS, W-CDMA, CDMA-2000 and IMT-2000. Some of these are used describing the same technical standard. UMTS for instance can be implemented using a W-CDMA technology. However, the name of the standard which a service provider chooses, or the technology behind it, whether it be W-CDMA or CDMA-2000, is not important in a customer relationship view. The important thing is that they all aim to provide one thing; namely mobile, broadband, voice and data communication.

The 3G mobile telephone system will provide a foundation for so much more than just voice communication. The second-generation mobile telephony is based on circuit switching and uses time slots to transfer voice and data. When a subscriber using 2G is connected to the radio base station she is assigned one time slot out of eight (on that GSM channel) and nobody else is able to use that time slot, a continues stream is opened. Since no one else can use this time slot the subscriber is charged for the time she is connected. This means that it would be very expensive to have a constant connection using today’s GSM technology. A development of GSM, called GPRS (General Packet Radio Service), use packet switching to send and receive data. GPRS only uses the time slots it requires when transmitting data and can thus be connected at all time, costing the subscriber money only when she is sending or receiving data (Telefonaktiebolaget LM Ericsson, 2000a). The available resources are used more efficiently and the services can be delivered at lower cost (Elwing & Larsson, 2001).

Even though the high cost of staying connected is no longer a problem with GPRS, there are still difficulties with bandwidth. The speed of sending and receiving data with GPRS is not sufficient for the types of applications and services we can expect in the future. Estimates show that a maximum speed of between 115 to 171 kbits/s (450 kbits/s with EDGE) is attainable (Nordling, 2000). Another problem with GSM/GPRS is the limited frequency span that is in use. This makes it difficult to uphold the level of service to the subscribers as more and more people start using a mobile phone (ibid.). A benefit of UMTS is that a UMTS – base station can handle up to 2800 simultaneous calls compared to 300 for a GSM base station (Nordling, 2000).

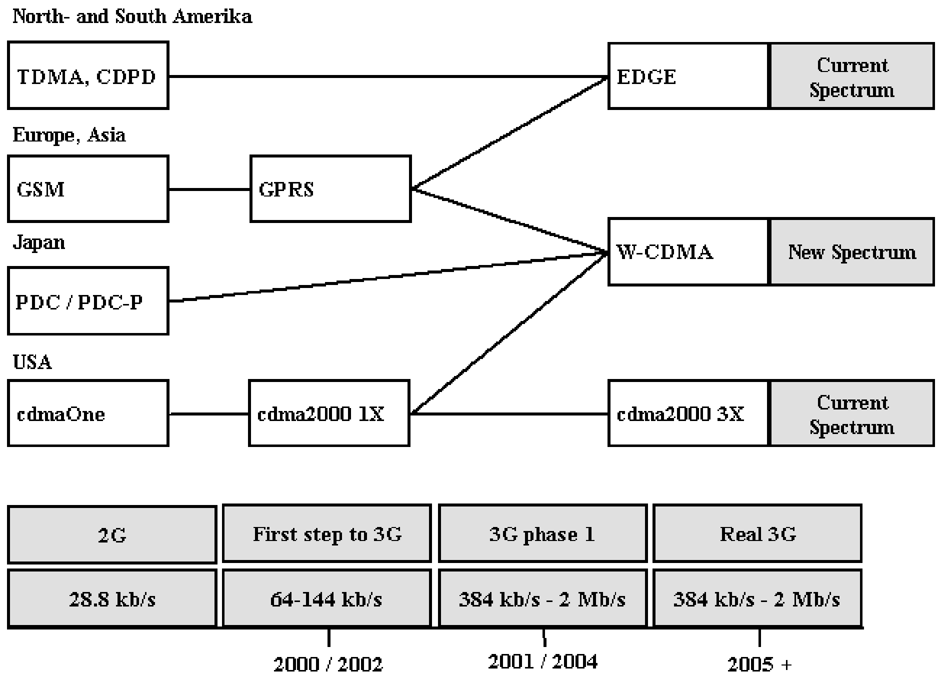

Figure 11. The road to 3G, adapted from Teleaffärer number 4, 2000 (Dunås, 2000).

The 3G system is created for all kinds of data-traffic in mind, not only voice. With UMTS it is possible to prioritise certain types of traffic and this makes it possible to offer a new type of services that require a particularly high bandwidth. With 3G it will be of great value to offer services dependent on the users position, so that a special service is activated when a user enters a specific location. Some experts rank different position based services and applications as the key factor for successful services in 3G (Dunås, 2000). Combined with a personal profile, kept by the service provider or the portal, positioning can create an opportunity for very advanced services. One might imagine a service that localises the nearest automatic teller machine (ATM) or tells you where the nearest sushi restaurant is located (Elwing & Larsson, 2001). Buckingham (2000a) has created a ranking-list over which services he thinks will be successful with 3G and GPRS:

Ranking	*Application*	*System*
1	Voice over IP (VoIP)	3G
2	Moving images	3G
3	Remote LAN Access	GPRS/ 3G
4	File Transfer	3G
5	Downloading Software	3G
6	Web Browsing	GPRS/ 3G
7	Audio	GPRS/ 3G
8	Document Sharing/ Collaborative Working	GPRS/ 3G
9	Home Automation	GPRS/ 3G
10	Electronic Agents / Positioning	GPRS/ 3G
11	Dynamic Authoring	GPRS/ 3G
12	Virtual Home Environment	3G

Figure 12. Buckingham's ranking-list over preferred services in 2.5 – 3G. (Elwing & Larsson, 2001)

Other types of services mentioned in the press are interactive games, gambling, music, video, banking, stock trading, video conferencing, email and machine-to-machine communications (telematics).

The time of day will have an impact of which service is in demand (Dunås, 2000). A subscriber commuting to work at 7 am will be interested in receiving traffic information and that the application suggests an alternative rout to work, whereas he, if the subscriber is a man, might be more interested in the nearest flower shop when it's his and his wife's anniversary.

3G terminals (e.g. mobile handsets) will be quite diverse in style and design. Some will resemble miniature television sets just as much as they resemble today's 2G wireless handsets (Strategy Analytics, 1997). The terminals will probably have larger screens than current handsets in order to enable graphics, video clips and mobile conferencing (Telefonaktiebolaget LM Ericsson, 2001)

3.7.2 Customer differentiation

In order to assess what strategy a 3G service provider should take in a CRM solution we must first establish how 3G subscribers differ from each other. If a small amount of subscribers generate a large proportion of a service provider's revenue, the strategy should be different than if all customers generate principally the same amount of revenue. This is called customer valuation. Also, if the need differs substantially from one customer to another the service provider should apply a different strategy than if the customers needs are basically the same (Peppers & Rogers, 1997).

Peppers and Rogers have developed a model, dividing the basic type of business situations into four quadrants depending on how diverse their customers are, both in terms of valuation and needs. We have adapted this model to include a displacement of how subscribers differs today in a second generation GSM environment and how it is expected to change in the transformation to a GPRS and further into a 3G WCDMA environment. The grey parts involving mobile service provider's are our additions.

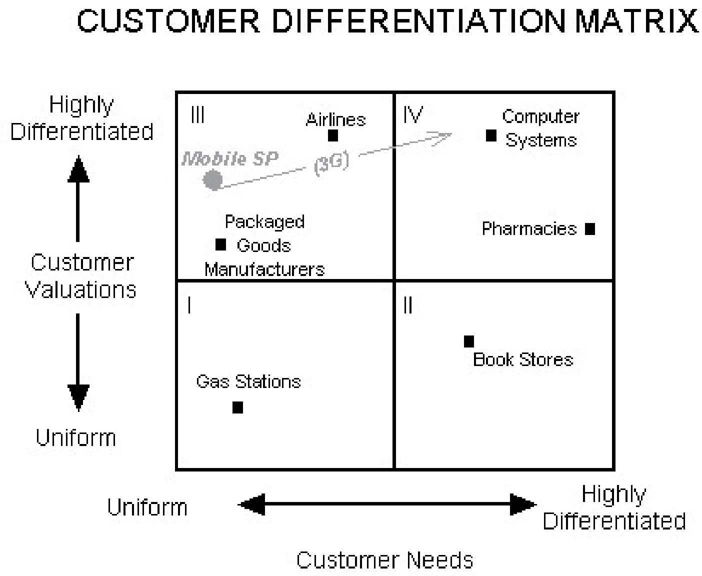

Figure 13. The model shows how customer differentiation in a mobile service provider's perspective is level likely to move towards a higher of need differentiation. Adapted by us from Peppers and & Rogers model in "Company one to one" (1997).

In quadrant I, the company's customers have basically the same needs and generate about the same amount of revenue. Companies in quadrant II have customers with more diversified needs but they don't differ much in revenue. Quadrant III companies supplies basically the same product/service to all its customers but the monetary value differs considerably between customers. Finally, in quadrant IV, we have businesses whose customers vary both in terms of needs and value. The service provider's subscribers are today considered to be located in the upper left area of the matrix above. Subscriber valuations are highly differentiated to a service provider. Some subscribers choose a prepaid subscription at a very low cost, using their mobile phones mainly in order to let acquaintances be able to reach them and are rarely using the phone to call someone themselves. Others use their phone to a large extent, generating large revenue to the service provider[5]. This is particularly true when taking into account business subscribers, who carry a large number of subscriptions.

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5 L. Samuelsson, personal communication, February 13, 2001.

The needs of the second generation mobile phone subscribers are basically the same; being able to call anyone independently of geographical position and be reached on the phone wherever she happens to be located, sending and receiving SMS and the option of an automatic answering service / voice mail. We expect this low differentiation of needs to change as the third generation mobile services are introduced, moving the business of service providers well into quadrant IV[6]. Some subscribers will want the ability to conduct their banking affairs over the 3G-device; some will want a service that will tell them where their children or friends are located. Some might want the ability to chat online or play online games. Others will want some kind of security service that will notify a security company when the user is in distress, informing the company of the users location and the nature of his or hers distress, whether it's of medical or security nature. For professional users there will certainly be a demand for services that allow them to connect to their office databases, making it easier to conduct business.

What requirements are then put on companies conducting business where needs and value of customers are quite diverse? First the company should be able to have a flexible way of communicating with their customers, making it possible for customers to interact and communicate their needs in a form that suites that particular customer. Secondly, the company should be able to supply a variety of products or services to their customers; all depending on their needs and field of interest (Peppers & Rogers, 1997). Both service providers and content providers are currently developing the content and services accompanied by a 3G subscription and there should be a wide variety of services when 3G is introduced.

[6] L. Samuelsson, personal communication, February 13, 2001.

4 Empirical result – Experts' opinions

This chapter is the result of the three interviews we did. The interviews are put together to make the text easier to read. The interviews are presented in the appendix.

The persons interviewed are Johan Hellbom at Accenture, Marie Eriksson at Ericsson Mobile Business Solution, and Bearnice Nilsson at Europolitan Vodaphone.

Hellbom has been working at Accenture for two and a half years within the sector Communication and High Tech. His field of competence is CRM. The first projects he participated in where in customer services in the process and organisation domain. Hellbom has also worked with self-service (Internet channels).

Eriksson has worked for Ericsson Mobile Business Solutions for two years with contact centers, which are a major part of CRM and within CRM for five years. Eriksson is a business consultant and focuses on pre studies and processes.

Nilsson has worked on Europolitan Vodaphone for seven years. She began to work as an operator in customer services, Europolitan Vodaphone's call center. Now she is working at after-sales, which is responsible for the communication with all Europolitan Vodaphone's current subscribers.

4.1 CRM

CRM is viewed as a process that ties marketing, sales and service together. The principal purpose is to face the customers in a personalised and differentiated way, regardless of what channel is being used. CRM adds value for the company in the form of relationship building. CRM is not a system solution but a strategy that involves the whole company in its work towards the customer. The systems are, however, a necessity for implementing the things that one has decided to undertake.

The overall goals with CRM are to attract, develop and retain customers, to create profitable growth, and to increase the value in a company's trademark. The most important goal is to make the valuable customers remain in the company, and this is done by adapting the business processes to fit the customers wants and needs.

Companies have historically thought of CRM as a technical solution – to collect information in a giant data warehouse, analyse it and retrieve it for customer purposes. This is however beginning to change. Companies are aware of that it takes a business philosophy and a willingness to build the relationship with the customer. The companies must learn more about their customers.

The relationship with the customer is strengthened every time the service provider can catch information about the customer. By constantly improving the information about the customer, a service provider can create a customer profile that is refined and adapted depending on the customer's personal preferences.

When the company want's to improve its customer relations they should increase the ways to make contact; make it easier for its customers to choose how to make contact. It can also be about improving the service. In general it is about improvement in order to take care of the customers.

A point of contact without a possibility to have a human interaction, like with a web-portal, with the company is possible to implement but it is not a good CRM-solution. It is often effective to automate services but there has to be alternatives. How you construct a portal depends on the business but anything that makes the customers work easier is of value.

It is important that the company have a written strategy of how to deal with customers in order to not loose control of the business. Training of the staff is very important but the companies must know for what purposes the training is being done. It is important to have a business case in all activities that a company implements.

The difficulty with CRM is most often to present a business case. The difficulty is to see the value of the actions and what it leads to. One has to be able to quantify one's goals. Another difficulty is to implement a CRM-thinking as much as a system, and a third difficulty is that it is hard to agree on a common definition of what CRM is.

In the future, CRM will develop even more in getting a complete 360-degree view of the customer. This will enable companies to render more revenue per customer, both through up-sell and cross-sell.

4.2 Telecom

The basics of CRM are the same disregarding what line of business the company is in, including the telecom industry. However, what is important in telecommunications is to integrate the CRM system with the systems for service provisioning, activation and mediation. (The service provisioning area relates to services, solutions and systems that handles activation of subscriber service requests. Activation brings the individual subscriber's service alive, and mediation is collecting data about the subscriber's traffic.)

Everything a service provider does influences the relationship with the subscriber. All contact areas form the relationship. Even an invoice is a kind of relationship with the subscriber. Strictly speaking, the relationship starts when a contract is signed.

A leading service provider said that they have no special activity to win back subscribers that have left them. However, in the cases where the cause is unknown, they do ask why the subscriber has closed her subscription in order to prevent further defections. In most cases it's because the subscriber has bought a new phone with a new subscription.

The service provider should work actively with segmenting their subscribers looking for behaviours in order to be able to offer the right subscriber the right kind of services. If a certain subscriber uses a specific service the service provider can offer a complementary service to this subscriber.

As the economy develops the subscriber is becoming increasingly demanding both towards products and services. In the case of the telecom market the issue is the increasingly complicated product that is offered. The subscribers need help in handling the devices and services.

Since the subscribers don't know what services they are interested in with 3G, new services are being developed and then the developers try to find subscribers that suit them. Accenture foresees three types of services or a combination of the following three:

- Position dependent (where is the subscriber located?)
- Time dependent (morning, lunchtime, dinner, time of year etc)
- Personalised (adapted to the subscriber)

It is important to know who the subscriber is. When new services are being developed for 3G, youth is an important market.

It is becoming increasingly important for a company to have a CRM strategy. The subscribers move easily from one supplier to another in all businesses but there is even more pressure on the telecom business especially in connection with the deregulation of the telecom business in Europe. Barriers such as having to switch phone numbers are removed by government decisions like number portability and the service provider has to create emotional attachments instead.

There will not be a great difference between 2G and 3G from a CRM perspective. The increasing number of new services and content will certainly increase the pressure on the contact center, but the processes will probably be the same as today.

4.2.1 Contact center

A contact center is a multichannel operation, which deals with customer contact. The channel might be video, telephone, chat, e-mail, IP-telephony and so forth. The contact center is the front towards the customer. It is important for the development of customer relationship to broaden the contact points with the customer, to allow more interfaces with the contact center. The contact center must be able to answer all of the customer's inquiries.

The main channels that are used for communicating between a company and their customers today are telephone, fax, e-mail and letters. IVR is only used to a small extent. Customers of today are not yet prepared to use IVR. But

IVR will become a channel that customers use more in the future. Other tools that can be used to enable communications with customers could be a chat tool, call-me-buttons (IP-telephony), automated services where a knowledge database is presented, a FAQ to answer usual questions. The tools available should comply with customer demands for better service.

Besides checking her invoice or ordering new services the subscriber is expected to have the desire to alter her subscription, look at what services that she is using, refine the services and order complementing services. The services and subscriptions will become more complex and the subscriber will want to adjust her preferences accordingly and that is something that the service provider will have to let the subscribers do by themselves.

If a service provider wants to have a low cost profile they could eliminate the contact center. However, to completely refer subscribers to an fully automated, Internet based, point of contact can not be done today because the subscribers wants to talk to a person sometimes. The fully automated point of contact could perhaps be a reality in 10 years from now.

4.2.2 Value Chain

When implementing CRM the company starts at the top: What customers do we have and what are they interested in? The company must also consider where they are heading and where they want to go. This is then decomposed into goals, business processes, abilities and systems to support this. To know which companies to involve in the value chain, one must first know what the customer wants.

Historically the service provider has controlled the entire business from generating content to selling subscriptions to subscribers. This is however changing and there is a new value chain developing:

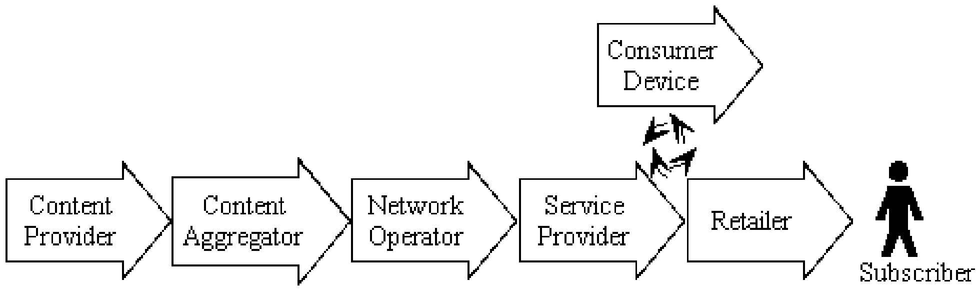

Figure 14. Future Mobile Telecom value chain as presented by Accenture

In this environment there arise new companies such as genuine service providers that have no infrastructure of their own, as well as genuine Network Operators. Another development is that partnerships with content providers are becoming increasingly important in order to offer value to subscribers. A service provider could buy bundled services from a content aggregator to attract subscribers. The content aggregator takes different services from different content providers and bundles them. The quality of the services offered will become tremendously important with the entrance of 3G.

How a service provider should deal with a subscriber depends very much on which role it takes on in this environment. If the service provider also takes on the role as a content aggregator it place tremendous demands on support on the service provider. The service provider will in this case have to support the entire value chain. The different strengths between the elements in this value chain will prove very important in the future. Flows of payment can run both ways between content providers and service providers depending on which is the strongest part.

4.3 Processes

To divide a business into processes makes it easier to focus on the customer. That way the company always knows where in their processes a specific customer is so that they can treat the customer accordingly. Knowing the customers process position makes it easier to know how to treat the customer when she is at a breakpoint between different steps in the process(es). The processes a service provider use to manage their subscribers are sales, order handling, problem handling, and invoicing and payment collections. The subscriber could manage these processes through an Internet based point of contact. These four processes are subprocesses to the Customer Interface Management process. The Customer Interface Management process is responsible for managing all interfaces with the subscriber and starts every time the subscriber makes contact with the company. Every contact is logged to allow follow-ups and analysis. The operator writes down the issues that where discussed.

The contact, or the meeting, between a company and its customers consists of four overall processes – connect, interact, disconnect, and feedback.

- The connect process can consist of for example register (for new customers), login, adapt to personal settings, and a process that resumes unfinished processes.
- The interact process can consist of for example sales, order handling, problem handling, and invoicing and payment collections.
- The disconnect process can consist of save unfinished processes, and logout.
- The feedback process could consist of complementary additions, up-sell, cross-sell, and communication of the result from the meeting.

With 3G the processes will probably be the same however somewhat adapted to fit new technology and new services.

4.4 Information

It is important to know as much as possible about the customer. The company should have a well-defined target group and adjust its work to that group.

The information that a service provider collects is used to adapt their offers to the subscriber's needs. The service provider wishes to make suggestions to the subscriber based upon how she uses her subscription. They segment their subscribers e.g. by using a scoring tool taking into account different parameters that tell them how profitable the subscriber is, how long she has been a subscriber, the provision they have to pay the reseller, the behaviour the subscriber shows, her average invoice. This way they can see who their most profitable subscribers are but also the most strategically important subscribers, for example those who have been a subscriber for a very long time.

Every time a customer uses a service new information adds to the existing information. In time this information will become more and more precise.

4.4.1 Privacy

A key issue is to get permission from the customer to use the acquired information. Privacy is tremendously important. The customer will accept certain things in different situations. Early in the morning on the subway the customer will be interested in certain types of services and on the afternoon on her wedding day other types of services.

5 Discussion – implications for design

In this discussion we provide the result of the analysis and the interpretation of theory and interviews. The discussion gives the answer to the question.

How should a service provider set up a point of contact in order to manage customer relations in the 3G mobile Internet?

A reflection we did was “Is it possible to manage customer relations in the mobile Internet through a non personal interface?” At this point, when we have collected theory and conducted interviews, we believe that “Yes, it is possible.” That is, it is possible from a technological perspective. There is an extensive development in the IT area as well as infrastructure and it means perhaps unlimited possibilities. However, the customers are not ready to take the step into the fully automated world. They want to be able to talk to a person.

5.1 CRM

CRM is a strategy. CRM is not a system. If you have a system that supports CRM it doesn’t automatically mean that you are practising CRM. The term CRM itself implies management of customer relations, and in order to manage these relations you have to know “what” and “how”, that is: you must have a strategy.

CRM could be smiling to every one of your customers. CRM could be talking politely to every one of your customers. CRM is to treat your customers in a way that makes them feel that you are taking care of them. CRM doesn’t have to be supported by information technology. But, CRM means recognising your customers and that implies knowing who they are. The companies of today often have a lot of customers and getting to know each and every one of them face to face is impossible. Instead, the company can collect information about the customers and store it in a database. That way the company will know who the customers are and what their preferences are. Here the information technology plays the major role in collecting, storing, and analysing information, and enables communication with the customers.

In a relationship, information is collected and communicated. The carrier of information is information technology.

5.2 Rich vs. Reach

Since information is the basis of the relationship between a service provider and a subscriber, we find it interesting to see how to increase the value of the information. That is, how a service provider can communicate more information with more subscribers at the same time.

We have adapted the graph "The traditional Economics of Information" provided by Evans and Wurster (1997). Our interpretation looks like Figure 15. The information can be transaction data or communication data, and the number of subscribers that the service provider reaches with the information are few or many.

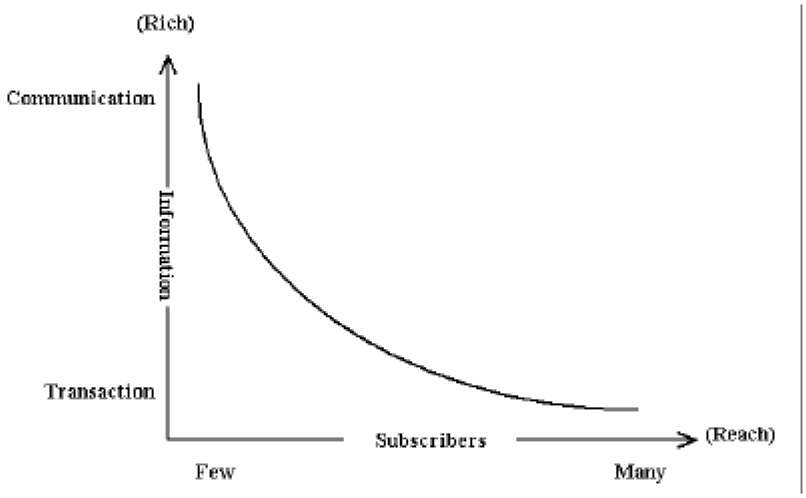

Figure 15. Rich - reach in telecommunications. Adapted from Evans and Wurster (1997).

What is interesting from a service provider's perspective is to manage information more effectively. Say for example, that the service provider sells a video on demand service. The service provider then wants to give as many subscribers as possible the possibility to get in touch with the service provider. If a subscriber doesn't get the service when she wants it, it is not likely that she will return. At minimum she will be disappointed.

The strategy then implies moving the curve in Figure 15. To do this, the service provider must consider four factors: bandwidth, customisation, interactivity, and multichannels.

In Figure 16 we describe the strategy graphically:

1. When the service provider has identified the limitations for communicating with their subscribers, it can be described as in graph no. 1.
2. If the service provider wants to reach more subscribers they should increase the number of channels making it possible for the subscribers to reach the service provider. The subscriber might not have access to a certain channel, but she can use another one instead that suites her situation. This means that more subscribers will have the opportunity to get in touch with the service provider.

3. As the services are getting more complex and advanced the amount of kilobits are increasing. The information (e.g. videoclips that describes services etc.) becomes richer, which means that the service provider must increase bandwidth in order to serve their subscribers. The richness of information also increases with customisation and interactivity.
4. In order to reach more subscribers with rich(er) information the service provider must ensure multichannels, bandwidth, customisation, and interactivity.

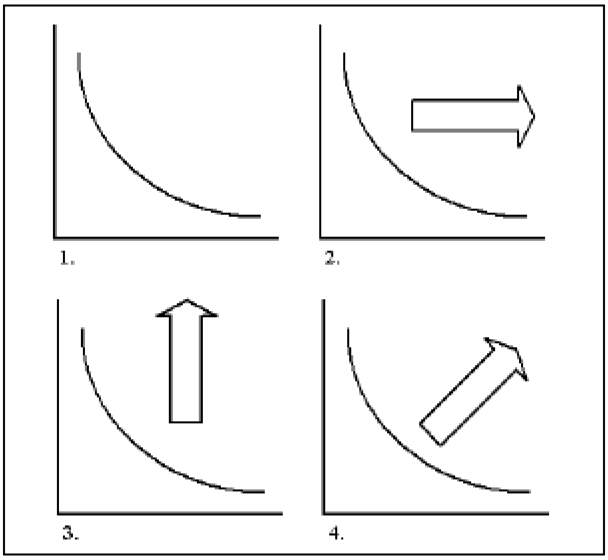

Figure 16. The strategic dimensions of rich - reach

From a CRM point of view the service provider must adapt their services to the subscribers' demands and needs. With 3G bandwidth increases, and multichannels create freedom of choice for the subscribers. In order to meet the subscriber's expectations the information must be customised, and in order to build a long lasting relationship there has to be interaction between the service provider and the subscribers. This leads us to the kernel of this thesis: The point of contact.

5.3 The point of contact

The point of contact can be either an Internet based meeting place that supports multichannels such as web, wap, e-mail, and IP telephony. It is also possible to have an IVR based point of contact, but we believe that it will have less functionality depending on immature technology. The point of contact makes interaction between a service provider and their subscribers possible by communicating customised information. That is, the information is adapted to every subscriber individually. The point of contact also supports the subscriber if she wants to use automated services, as described below.

5.3.1 The substance in the point of contact

The point of contact can be described as a number of processes that handles information and services. The main process is the Customer Interface Management process, which manages the point of contact through the subprocesses Connect, Interact, Disconnect, and Feedback.

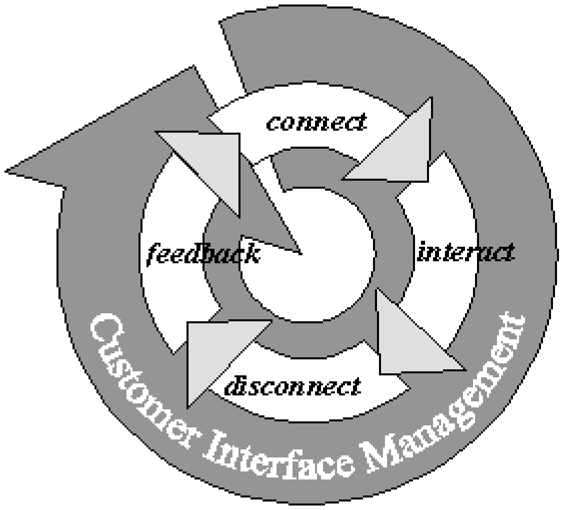

Figure 17. The processes in the point of contact

- Customer Interface Management: The Customer Interface Management process is logging the customer in order to follow where she is in the subprocesses and what she does. If a subprocess is interrupted the Customer Interface Management process saves the unfinished process if the customer wants to continue where she left off. The Customer Interface Management process can also redirect the output from a process into a new process.
- Connect: The Connect process could contain the subprocesses Register (for new customers); Log in; Identification; Adapt to personal settings; Search for unfinished processes. The Connect process handles everything that affects the initial contact between the subscriber and the service provider.
- Interact: The subprocesses for Interact are Sales; Order handling; Problem handling; Invoicing and collections (payment collections). This is where the subscriber manages the subscription and/or orders services.

- Disconnect: The Disconnect process does only that – Log out. When the meeting is over the customer leaves the point of contact.
- Feedback: The result of the meeting is communicated through the feedback. The feedback could also contain complementary addition or generate up-sell or cross-sell. This is the opportunity for the service provider to make sure that the subscriber is pleased. It is also the perfect opportunity to take the initiative to initiate a new meeting with the customer.

The processes help manage the subscriber's subscription which is based upon information and services.

The information contains data about the subscriber, the subscription, the services that the subscriber uses, and the service provider. This information is customised to suit the individual subscriber.

The services are the content that is provided by the service provider (and the service provider might have purchased the content from a content provider or a content aggregator).

5.3.2 The prerequisites for the point of contact

We have identified three areas that are required for the point of contact.

First of all there has to be a value chain supporting the delivery of value for the subscriber. The value chain is described in Figure 14 at page 46.

Secondly the interaction has to be supported by several channels of communication.

And finally, there has to be an infrastructure in place to support the interaction with the subscriber.

5.3.2.1 The value chain

One of the first choices a service provider must do is to decide whether to be part of a value chain or not. If the service provider decides not to be part of a value chain it will be difficult to build relationships with their subscribers since the subscribers must go elsewhere for content. A service provider that merely act as a provider of mobile access to the Internet and offer no complementary content provide only a low degree of customer assistance. The subscribers of that service provider cannot expect assistance regarding e.g. third party products. A service provider that sees the value in offering content along with the subscription must on the other hand cope with the subscribers needs and demands that follow with the content.

It is, in the end, the subscriber that decides what the content should be, and therefore how the value chain will be composed. It is in the service provider's interest to make sure that the value chain delivers what the subscriber want. The companies involved are:

- Content provider. The content provider provides content in form of e.g. games, video, document sharing, home automation.
- Content aggregator. The content aggregator bundles services (content) and sells it either to the subscriber directly or through a service provider
- Network operator. The Network operator owns the networks and sells access to other companies.
- Service provider. The service provider sells subscriptions to subscribers. The content of the subscriptions varies from one subscriber to another depending on personal preferences.
- Consumer device. The consumer device is manufactured by a company and sold to the consumer, either directly or through a retailer.
- Retailer. The retailer sells consumer devices and subscriptions.

5.3.2.2 Contact center

The customers new demands on ways of communicating and getting assistance has driven companies in many businesses to develop their call centers into contact centers. Even though new technology is developed and customers increasingly have the ability to manage their subscriptions by themselves, they will for the foreseeable future need human assistance in some occasions. This implies the need for an established contact center that helps manage customer relations through all the company's channels.

5.3.2.3 Multichannels

The 3G service providers must be able to interact with subscribers in a format which suites their subscribers. 3G subscribers are by definition mobile and will probably have high requirements on the level of service and the channel of communication. The subscribers are subscribing to a service that, to a large extent, is a voice communication service and it is likely that they often will call the contact center when they have requests or inquiries. Considering that the 3G terminal will be quite small by comparison to a desktop computer it is most likely that most subscribers in relation to for example the use of e-mail will prefer a voice service.

Voice over IP will of course be useful when a subscriber needs personal assistance while she is browsing the company's web pages.

We see that IVR has a place for simple tasks such as balance checks (invoices), call forwarding, and service ordering. It is also conceivable that a subscriber would order services on a web site, either from a stationary computer or through the 3G terminal itself. An order form designed to be used on a 3G terminal however must be easy to use and require little manual input from the user to be practical on a small 3G device.

When a subscriber encounters a problem, needs help filling out a form or want to have directions from the contact center, co-browsing and/or application sharing can prove enormously effective. Co-browsing saves time for both parties and, properly used, can be pedagogical.

Videoconferencing could be helpful in creating familiarity between subscriber and the contact center and enable a richer dialog. However this channel would demand an acceptance from both the subscriber and the contact center.

E-mail will of course be tremendously important for a service provider as a means of interaction with their subscribers. E-mails that can be traced back to a specific subscriber should be registered in the errand list for that subscriber as with any other form of interaction. E-mails have the advantage of being asynchronous and thus enabling the contact center to answer e-mails when the workload is low. The service provider should however answer e-mails within a few hours, preferably within two hours, as do some banks. An e-mail robot that suggests responses and the click-and-drag capabilities that Beresford proposes (see page 36) can be quite helpful in order to efficient and qualitative service.

5.3.2.4 The infrastructure

Besides the obvious 3G networks there has to be infrastructure in place to support the interaction with the subscribers. Notwithstanding the IP-backbone, the data warehouses, and the servers and clients, the point of contact has to be supported by tools that route subscriber contacts, tools for information retrieval and analysis, and tools for communicating with the subscriber such as IP-telephony applications etc.

Here it is also important to mention the tools that a service provider needs for communicating with content providers and content aggregators. The service provider must be able to communicate accurate information about the service level of the content that it subcontracts from content providers and aggregators.

5.4 The point in having a point of contact

The service provider wants to:

- Learn more about their subscribers
- Enable interaction with their subscribers
- Communicate effectively with their subscribers
- Increase sales to their subscribers
- Take workload of the contact center

The subscriber wants to:

- Have a look at her bills (view her balance) and perhaps make payments
- See which services she is using and which services that is possible to order from the service provider
- Order new services
- Check up on order progress
- Report problems with the subscription
- Get assistance when she has questions about her subscription or services
- Communicate her needs
- Create and maintain a personal profile so that she may have a more customised service
- Get assistance with their terminal/device settings. The service provider provides manuals for the different terminals so that the subscribers will find it natural to turn to the service provider for such information.

When the content is getting more complex it will increase the need for customer service. If the subscriber could do simpler tasks by herself it would take workload of the contact center. Self-service implies an easy to use interface and a FAQ.

There are great opportunities to promote Sales if a portal can be adapted to individual subscribers. If the subscriber can view the services that she subscribes to on a page in a portal, and at the same page see the services she *doesn't* subscribe to will prove a good basis for cross selling.

A personal profile that is created and maintained by the subscriber herself can be a powerful tool in getting to know the subscriber and provide her with services that is adapted for her personal preferences. The mobile telecom business has an extensive amount of information about their subscribers. A service provider knows a lot about the behaviour of the user, when and where the telephone is being used. For most parts the service provider also knows the name, sex and address of the subscriber. A personal profile would create an even richer picture of the users and enable the service provider to refine their offerings.

Having a point of contact is only useful if the subscribers actually use it. In order to get the subscribers to use the point of contact the service provider has to fill it with content that attract the subscribers. The subscribers should be able to order useful services directly from the service provider through the point of contact and get assistance when she encounters problems. But this is not enough. If the customer only orders one new service a year or encounters a problem with her subscription once a year it is not likely that she will even remember where she should turn to in order to get assistance. The point of contact should be the natural starting point for everything connected to the subscribers 3G device. How can this be achieved?

The point of contact should of course be adapted to fit this particular subscriber's profile and suite the subscriber's device. A female subscriber in her late teens would most probably be interested in radically different services than a male in his late fifties. Based on the subscribers profile and personal settings, the service provider could provide links from the point of contact to the most useful services to her. The point of contact should provide easy access to chat pages for those users who are interested in chatting, and easy access to gambling services for those subscribers who are interested in gambling. Some other features that might be suitable for deployment in the point of contact could be:

- A list of streaming music which first is created by the user and then updated with music that other users with similar taste listen to.
- A personal calendar.
- A shopping list that can be accessed and modified by family members.
- Download ringtunes and screensavers.
- Check on stock quotes
- Send SMS and messages in other formats like MMS (Multimedia Messaging Service) to friends.
- If the subscriber could have the opportunity to ad her own personal links to her favourite services this would also add value to such a site.

…and anything else that could bring subscribers to visit the point of contact. It is important to create opportunities for interaction between the subscriber and service provider. These interactions are a good basis to increase the knowledge about the subscriber and thus an opportunity to strengthen the relationship with her.

5.5 Critical success factors

- The service provider must control the value chain in order to keep the subscribers.
- The service provider must educate the subscribers into using the point of contact for self-service.
- The contact center must be able to handle all the incoming contacts no matter the channel.
- The service provider will have to manage questions that concern third party, like the content provider.
- Get the subscribers to visit the point of contact recurrent to create opportunities for interaction.

5.6 Reflections

In our interviews we have seen little evidence of a well thought-out strategy to deal with customer feedback in the form of suggestions and proposals. In practice, there is a high awareness of that companies must handle inquiries and complaints efficiently and promptly, but little thought is placed on how companies should make use of ideas that they can receive from their customers such as Peppers and Rogers proposes. We feel that these suggestions can be quite valuable and the companies should have a way of dealing with them. Of course suggestions must be registered like any other errand for the individual customers (in case they call back for follow-up), but it would also be beneficial if suggestions could be classified for analysis. This information could then be used in the (service) creation process in order to create better services.

Another area with low awareness, as we see it, is in the community domain. Customers in different businesses often form communities where they can discuss their particular interests. We believe that communities can promote more use of products and services and that there is a higher value in that a service is recommended by a fellow customer as opposed to a recommendation from the service provider. It is our opinion that a community that is initiated and supported by the service provider can increase usage and provide valuable information to the service provider.

Besides the task that a subscriber might want to perform that we describe above, we feel that it could be valuable for the service provider to incorporate some sort of rating system. In this rating system the subscriber should be able to rate the service providers level of service in network availability, network performance, content value, level of service and overall performance. (Perhaps with some form of incentive such as ”rate us and you’ll get 15 min free surfing, daily stock reports for a month or a day of free Mp3 listening or the participation in a phone lottery). The first rating of a subscriber might not be of great significance but the following ratings by that subscriber would possibly tell the service provider a lot. If for instance several subscribers previously have ranked the network performance by the highest level and then lower that rating a step, then this would be something worth looking into.

6 Conclusion

Our aim was to create a design proposal for how to set up a point of contact in the 3G mobile Internet. We wanted to identify the relation between the service provider and their subscribers on a one-to-one basis, and investigate how this relationship can be managed in the point of contact.

We started out by formulating a hypothesis that would serve as the base for our literature survey. The literature survey in turn would provide us with the necessary theory for conducting the interviews.

The theory supported us in our belief that an Internet based point of contact is the way to create and maintain a customer relationship for the service provider, and so did the interviews.

The main conclusion we reached is that the point of contact, first and foremost, should be Internet based, with multichannels, and be customised allowing the subscriber freedom of choice. Making the point of contact Internet based still enables the subscriber to talk to a person at the service provider's contact center.

How should a service provider set up a point of contact in order to manage customer relations in the 3G mobile Internet?

1. Identify the subscriber and her wants and needs
2. Set up the value chain
3. Set up the contact center
4. Adapt the point of contact to each individual subscriber

7 Recommendations for further work

Here we present the different areas we have identified as interesting for further research. They are derived from areas of problem that we have encountered, but put aside due to our delimitation.

- Analytical CRM, which is the collection and analysis of data to help operators understand what customers want and how they behave.
- Operational CRM, which increases efficiency of customer interactions by providing sales force automation, campaign management, call center management, field service support etc.
- We see that a virtual community has an important role to play in the communication between a company and their customers. How can an enterprise improve customer relations by taking an active part in a virtual community?
- When a company collects information about their customers it is difficult to analyse tacit information. How should any company turn tacit information into codified information, alternatively how should any company analyse tacit information?
- The customers profile is what determines the customisation. How is the customer profile created and maintained?
- The service provider will most certainly be the receiver of customer complaints if a service doesn’t function properly. If a third party provides the service then the service provider must be able to handle such complaints.
- Privacy is an important issue. With 3G mobile spam is a reality and it must be dealt with.
- Security is probably the most important issue since the customers must be able to trust the systems in order to use them.

8 Critical source analysis

The articles we have studied are taken from either specialist press or from independent CRM sites on the Internet. By doing so we have taken the precautions to avoid that commercial interests are guiding the content of the articles.

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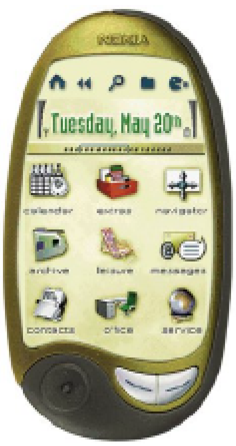
10 Appendix

3G Terminal concepts


ERICSSON


SX45


NOKIA
Tuesday, May 20th
calendar
extras
navigator
archive
leisure
messages
contacts
office
service

The questions in the interviews

Inledning

1. Berätta lite om företaget.
2. Berätta lite om dig själv och din roll på företaget.
   - Vilken uppgift har du på företaget?
   - Hur länge har du jobbat på företaget?
   - Vad har du för erfarenhet av CRM?
   - Vad har du för erfarenhet av telekom?

Allmän CRM

3. Hur ser Accenture på CRM? (inom B2C…, övergripande eller en del av verksamheten? Är CRM en strategi eller en systemlösning?)
4. Vad är det viktigaste inom CRM? (ex kommunikation, relation, IT)
5. Vad tillför CRM till företaget? (…som inte fanns innan begreppet CRM myntades)
6. Varför är CRM (kundvård) så hett just nu?
7. Är företag medvetna om vad CRM är? (Vad det innebär för deras organisation?)
8. Innebär en implementering av CRM att man måste göra en omorganisation?
9. Vilka är svårigheterna med CRM?
   - Hur löser man svårigheterna?
10. Hur kommer CRM att utvecklas?

Allmän telekom

11. Hur stämmer bilden, bild 1, med Accentures bild av telekombranschen?
12. Hur definierar Accenture en service provider?
13. Hur skaffar sig en ny service provider en kundbas? (lågt pris, bra service, bra tjänster…?)
14. Vad är avgörande för att en service provider skall kunna behålla sina kunder?

CRM system

15. Vilka funktioner/processer ska ett CRM system stödja?

16. Kan man implementera ett system som stödjer CRM utan att ha en CRM strategi först? (Kan strategin ”implementeras” i efterhand för att passa systemet?)
17. Finns det några system inom telekom som är extra viktiga att integrera med CRM-systemen?

Telekom – CRM

18. Hur ser Accenture på CRM inom telekom?
19. Vilka speciella omständigheter gäller för CRM i telekom?
20. Vilka kundprocesser har ni identifierat när det gäller en service providers kunder?
21. Vad bör “point of contact” innehålla? (Med “point of contact” menar vi mötesplats, och särskilt då den Internetbaserade mötesplatsen)
22. Vilka processer kan en ”point of contact” bestå av?
23. Kan en service provider hantera hela relationen med sina subscribers via Internet?

    Ja:

    - Hur?

    Nej:

    - Vad saknas?

Värdeskapande processer

24. Hur skapas värde för kunden?
25. Hur skapas värde för företaget?
26. Hur identifierar man kundens värdeskapande processer?
27. Hur identifierar man företagets värdeskapande processer?

Information

28. Beskriv förhållandet mellan rik (rich) information och att nå ut (reach) med information.

Interview with Johan Hellbom, Accenture (in swedish)

Intervju med Johan Hellbom, Accenture. 2001-04-03. Andreas Wahlin & Mikael Aldervall.

Johan har jobbat på Accenture i två och ett halvt år inom Communication and High Tech, kompetensdimension CRM. De första projekten gällde kundtjänst och call center lösningar på process och organisationssidan. Johan har också arbetat med Self Service (internetkanaler). För Accenture har Johan dessutom varit involverad i att bygga upp en organisation kring organisation och high level-processer inom CRM-området.

Enligt Accenture handlar CRM övergripande om att attrahera, utveckla och behålla nöjda och lojala kunder; att skapa lönsam tillväxt; samt, att öka värdet i ett företags varumärke. Dvs:

Attrahera:	- öka antalet lönsamma kunder
Utveckla:	- öka lönsamheten för existerande kunder
Behålla:	- öka längden på varje kundrelationen

Accenture ser på CRM som en process som knyter samman marknadsföring, försäljning och service. Huvudsyftet är att möta kunder på ett personifierat och differentierat sätt, oavsett kundens val av kanal.

CRM är inte en systemlösning, utan en strategi som genomsyrar företaget i arbetet mot kund. Systemen är dock en förutsättning för att man ska kunna förverkliga det som man har beslutat sig för att göra.

Något av det viktigaste inom CRM ur ett operatörsperspektiv är att skapa lojalitet, att få kunden att stanna kvar och allting vi behöver i bakgrunden för att åstadkomma det.

Kunden kräver mer av produkter och tjänster när ekonomin utvecklas. Om man ser till telekombranschen så handlar det om att produkterna blir mer och mer komplexa. Det blir svårare för kunderna att själva hantera en produkt. Det som CRM tillför företaget är relationsbyggandet.

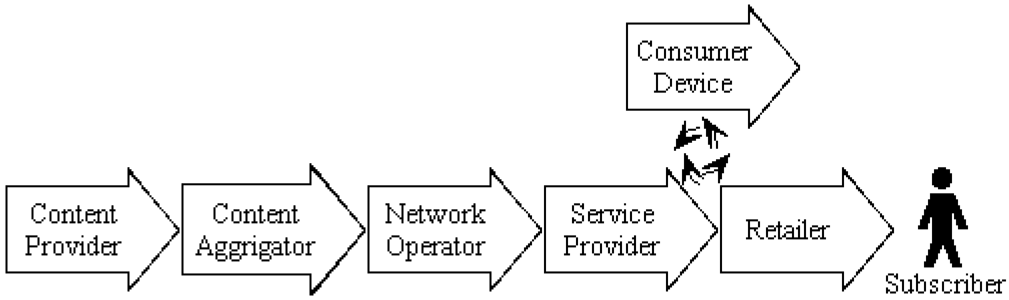
Företagen har länge trott att CRM innebär en teknisk lösning; att man samlar all information i ett stort datawarehouse och så är det mer eller mindre bra med det; men detta börjar ändras och företagen börjar få upp ögonen för att det krävs en filosofi och en vilja att bygga relationen med kunden och lära sig mer om honom eller henne.

Utbildning av personalen är väldigt viktigt men du måste veta i vilket syfte och vad utbildningen skall leda till. Det är viktigt att ställa upp ett business case för allt man gör.

Det svåra med CRM är ofta just det att ställa upp ett business case. Att se exakt vad det man gör skall leda fram till. Det gäller att på något sätt kvantifiera sina mål. En annan svårighet är också det att det gäller att implementera ett CRM-tänk lika mycket som ett system.

CRM kommer i framtiden att utvecklas ännu mer mot att få en FULLSTÄNDIG bild av kunden. Detta för att möjliggöra ökade intäkter per varje kund. Både genom cross-sell och up-sell.

Accenture har ett värdekedjeperspektiv på hur det ser ut i telekombranschen.



Klassiskt så har en provider haft verksamhet från content aggregator till service provider. Detta förändras nu och det dyker upp rena service providers utan egna nätelement och rena network operators. En annan utveckling är att partnerskap med content providers blir oerhört viktigt för att säkerställa ett innehåll i näten. Just tjänsteutbudet kommer att bli oerhört viktigt i och med 3G. Man kan tänka sig att service providers bundlar tjänster för att locka till sig kunderna.

När man börjar med CRM så är det bäst att börja uppifrån: Vart är företaget på väg?; vad vill vi?; Bryta ned detta till mål och utveckla affärsprocesser, förmågor och system för att stödja detta. Det kan dock tänkas att man för att åtminstone komma en bit på vägen i förhållande till kundens krav "trycker in en lösning som är 70% rätt" även om det inte räcker hela vägen. Sedan kan man inkrementellt förbättra sig hela tiden för att arbeta upp emot idealbilden.

De system som är viktigast att integrera med CRM systemen i telekombranschen är system för provisioning, service activation och mediation.

Hur providern skall hantera sin kund beror väldigt mycket på vilken roll hon tar på sig. Om man tar på sig rollen som content aggregator så kommer man att få stora krav på sig när det gäller support. Man kommer då att vara tvungen att stödja hela kedjan. Just styrkeförhållandena mellan alla delar i värdekedjan kommer att påverka mycket av situationen i framtiden. Betalningsströmmar kan komma att gå åt båda håll beroende på hur starka content providers är.

Att helt och hållet skrota call centers vill du kanske göra om du har en extremt low cost profil,men att helt hänvisa kunden till webben låter sig inte göras i dagsläget. Möjligen inom 10 år.

Det är viktigt att se över vilket segment man inriktar sig på. Providern måste positionerna sig utefter vilka kunder man är intresserad av. Om man inte har en existerande kundbas så får man göra generella antaganden om vilka kundgrupper som är intressanta. När det gäller 3G så tittar man mycket på ungdomar eftersom de ofta är early adopters och intresserade av nya saker. Många av tjänsterna som utvecklas är inriktade på ungdomar.

Eftersom kunderna idag inte vet vad de vill ha (eftersom de inte vet vilka komplexa tjänstemöjligheter som finns) så utvecklar man tjänster och försöker sedan att hitta kunder till dem. De flesta tjänstepaket kommer som Accenture ser det innehålla alla eller delar av tre förutsättningar:

- Positionsbestämt (var befinner du dig)
- Tidskänsligt (morgon, lunch, middag, årstid o.s.v.)
- Personifierat (anpassat till dig som person)

Den personifierade delen kommer att förbättras allteftersom kunden använder sig utav tjänsten så att den blir precisare för varje gång.

En nyckelfråga här är att kunden måste ge sitt tillstånd att du får utnyttja den information som du samlar på dig. Frågan om privacy är mycket känslig. Kunden måste ge sitt tillstånd till att använda informationen i det här och det här syftet och ni får kontakta mig i den och den situationen.

Avslutningsvis kan sägas att CRM innebär att bygga långsiktigt lönsamma relationer. Relationerna byggs varje gång som service providern har en möjlighet att snappa upp någon information om kunden. Genom att hela tiden bygga på information om kunden kan man skapa en profil som hela tiden förädlas och anpassas beroende på personliga preferenser, tid och plats. Användaren kommer att vara intresserad av vissa tjänster i tunnelbanan klockan 07.30 och helt andra 17.00 på hans bröllopsdag.

Interview with Marie Eriksson, Ericsson Mobile Business Solutions (in swedish)

CRM är en strategi som handlar om hur ett företag ska hantera sina kunder. De verktyg som används för att arbeta efter strategin handlar om marknadssystem, säljsystem, kundsupport och backoffice system för att bemöta sina kunder på ett bra sätt.

Det viktigaste med CRM är att anpassa sig efter kunden, att se kundens behov och att kunna bygga upp bra lösningar och bra sätt att jobba med kunden utifrån de behoven.

Vad som är nytt med CRM är att när de tekniska lösningarna blir fler och mer komplexa så måste man fokusera på kunden. Om man tittar för mycket på tekniska lösningar så riskerar man att glömma kunden.

Eftersom CRM handlar om att förbättra för kunden så kan det räcka med små justeringar i befintliga processer eller så krävs ett helt nytt sätt att jobba med nya arbetsprocesser och kanske en ny organisationsstruktur.. Det kan handla om hur man strukturerar ett arbetssätt, att ändra ett arbetssätt mot kunden. Man måste identifiera vad det är man vill uppnå i sitt arbete mot kunden. Man måste ha en strategi. Strategi är riktlinjer och definitioner av tillvägagångssätt för att nå sina affärsmål.) Målet med en CRM-strategi är att behålla sina kunder och att skaffa nya.

En svårighet med CRM kan vara att det råder olika uppfattningar om vad CRM är. CRM har olika innebörd för olika företag men det handlar alltid om att skapa och behålla goda kundrelationer. Ansvaret för kommunikationen ligger på företaget. Om företaget vill ha en bra relation med sina kunder så måste initiativet komma därifrån. Företaget måste skaffa så mycket information som möjligt om kunder och marknad.

Ett contact center är en front mot kunden där man hanterar multipla kanaler, och det är där CRM passar in – hur man hanterar alla dessa kundkontakter. Ett contact center kan också beskrivas som en verksamhet som använder en teknisk plattform, och det är denna plattform som utgörs av kanaler. Plattformen ser olika ut beroende på vilka kanaler man väljer att erbjuda sina kunder.

Det finns en definitionsskillnad på ett contact center och ett call center. Där ett contact center hanterar multipla kanaler så hanterar ett call center bara inkommande telefonsamtal. Eftersom möjligheterna att erbjuda kunderna fler kontaktvägar än telefon så har benämningen ändrats från call center till contact center.

Om man ska införa en CRM-strategi på ett företag så måste man veta så mycket som möjligt om sin slutkund. Man vet ofta vilka kunder det är som tar kontakt och vilken målgrupp de tillhör, och utifrån den informationen anpassar man sitt sätt att jobba i ett contact center. Man vet vilka verktyg man ska använda mot de olika målgrupperna. Det är slutkunden som styr sättet att jobba i ett contact center. Generellt gäller att man försöker samla in så mycket information som möjligt om sina kunder. Man använder sedan informationen för att erbjuda en så bra och anpassad kundservice som möjligt.

För att förbättra sina kundrelationer kan man utöka sina kontaktytor, att man breddar utbudet för sina kunder. Det kan också handla om att man förbättrar sin service. Rent generellt handlar det om att förbättra något för att vårda sina kunder.

Många operatörer ser hur Internet-trenden växer. Och då tittar man på vad man kan göra på Internet för sina kunder. Man tittar på mobila Internet-portaler, att man via ett WAP-interface får tillgång till ett antal olika tjänster – egen struktur på sina mail, konfiguration av sin WAP-telefon, ladda ner olika ringsignaler, spela spel… Att erbjuda tjänster via Internet är ett sätt för operatörerna att tänka framåt.

Kommunikationen spelar en stor roll i en relation. Att man har en bra kommunikation är det som bygger upp en relation. Det är avgörande för att få behålla en kund. När man vill förbättra kommunikationen med sina kunder så kan ett sätt vara att utöka kontaktytorna, dvs kanalerna som möjliggör kommunikation. För att hantera dessa olika informationskanaler på ett kundvänligt sätt krävs det också mer samordning och flexibilitet av företaget

En Internet-baserad point of contact borde innehålla chat, IP-telefoni, FAQ. Det ska också finnas länkar till andra delar som är relaterade till verksamheten, som är intressant för kunden, som underlättar kundens arbete. Det går att utforma en Internet-baserad point of contact så att kunden aldrig behöver komma i kontakt med en person på företaget. Men om man inte ger kunden möjlighet att välja kontaktsätt så lever man inte upp till en bra CRM-lösning. Det är bra att automatisera tjänster och det är oftast effektivt, men man måste ge kunden andra ”mänskliga” alternativ också.

Exempel på de processer företaget kan ha för att hantera sina kunder är Sales, Order handling, Problem handling, Customer Quality of Service Management, Invoicing and collections, Market fulfillment, Retention and loyalty. De processer som berör kunden direkt är Sales, Order handling, Invoicing and collection och Problem handling. Detta är processer som kunden skulle kunna hantera via en Internet-baserad point of contact. Förutom dessa processer så kan man se processen hur man hanterar sin slutkund i kontaktvägarna. Mötet kan sägas bestå av fyra huvudprocesser – Connect, Interaction, Disconnect och Feedback. Dessa fyra processer består i sin tur av underprocesser. Det kan vara Register, Login, Identification, Adapt to personal settings, Unfinished processes för Connect. Under Interaction finner man de processer som behandlar kundprocesserna Sales, Order handling, Invoicing and collection och Problem handling. Under Disconnect kan det handla om Save unfinished process, Log out och slutligen under Feedback: Supplementary, Up-sell, Cross-sell, Result of the meeting.

Den nya tekniken kommer dock att medföra en förändring av processerna i och med att en ny teknisk infrastruktur och ett helt annat utbud än det som finns idag kommer att påverka processerna. Med 3G kommer så mycket fler möjligheter att utöka tjänsteutbudet och då kommer det nya processer, som t ex med bilder i telefonen.

För att skapa värde för kunden så anpassar man tjänsten att passa varje unik kund. För att lära känna kundens värdeskapande process kan man skicka enkäter, eller ringa etc. Det är viktigt att tala om att anledningen till att man frågar är att man vill anpassa och bredda sina erbjudanden till kunden.

CRM ska leda till ökad effektivitet och ökad lönsamhet för företaget. Det gör man delvis genom att skapa så kostnadseffektiva kanaler som möjligt. CRM handlar också om att göra varje enskild kund lönsam. För att identifiera de processer som skapar värde för företaget så utgår man från sina affärsmål.

Affärsmålen i sin tur bygger på vilka kunder som finns och vad de vill ha; hur marknaden ser ut.

För att leverera värde till kunden så samarbetar företag i en värdekedja. Inom telekom kan den värdekedjan bestå av Content provider – Content aggregator – Network operator – Service provider – Consumer device – Retail – Customer. För att identifiera denna värdekedja måste man först identifiera kunden. När du vet vad din kund vill ha så sätter du samman de företag som levererar värde till kunden.

Interview with Bearnice Nilsson, Europolitan Vodaphone (in swedish)

Intervju med Bearnice Nilsson, Europolitan. 2001-04-25. Mikael Aldervall.

Bearnice har jobbat på Europolitan i sju år. Till att börja med arbetade hon som operatör i kundtjänst och numera arbetar hon på eftermarknad som har ansvaret för kommunikationen med alla Europolitans befintliga kunder, en del av affärsområdet Mobil Telekom Service.

Europolitan arbetar aktivt med att segmentera kunderna efter beteenden för att kunna erbjuda rätt kund rätt tjänst. Om en viss kund använder en specifik tjänst så undersöker man om man kan erbjuda en kompletterande tjänst till denne. Europolitan försöker kommunicera rätt saker till rätt kund utefter den segmenteringen man gjort.

Processer
Europolitan har en process som de kallar : *att göra kunden mer Nöjd Lojal och Lönsam (NLL).*
Europolitan har 7 stora processer varav en är kundprocessen. (Nätprocess och ledningsgruppsprocessen osv gick vi inte igenom).
Kundprocessen består av de tre delprocesserna:
Attrahera, Kontraktera, Utveckla

Att definiera verksamheten i processer gör det enklare att fokusera på kunden. Europolitan vet var kunden finns i de olika processerna och kan behandla kunden efter det. Vid brytpunkter mellan olika ’steg’ så är det lättare att hålla koll på kunden så att man inte missar något på vägen.
Varje ärende loggas för att kunna se vad som hänt, om det är samma fel igen osv för att man skall kunna göra uppföljningar och analyser. Operatören skriver ner vad man pratat om.

Kundrelation
Allt Europolitan gör påverkar relationen. Även en faktura är en form av relation med kunden. Alla kontaktytor bildar relationen. Strikt sett så

påbörjas relationen när avtalet skrivs under eller kunden köper ett prepaid abonnemang.

Europolitan har ingen speciell aktivitet för att återhämta kunder som slutar vara kund hos Europolitan. Däremot så frågar man varför kunden lämnar Europolitan vid de fall där man inte vet om orsaken för att kunna motverka fler avhopp. Oftast beror avhopp på att man byter telefon.

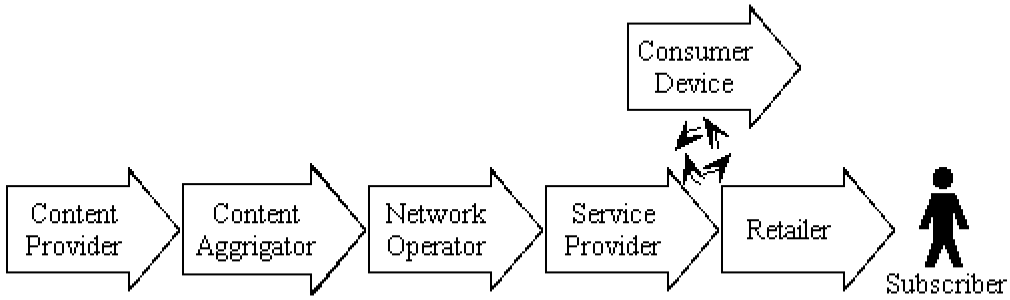
CRM-strategi.
Strategin hänger mycket samman med företagskulturen, man vill sätta kunden i fokus. Det skall sitta i ryggmärgen att ’vi arbetar för kundens bästa’.
Aktiviteter för att befästa detta är att man ringer upp kunden när kunden har varit kund ett tag och kontrollerar att allting fungerar smärtfritt, man rekommenderar rätt abonnemangs typ till rätt kund när man samlat in så mycket data så att man känner till kundens beteende och vet vilket abonnemang som passar kunden. Allt detta bygger lojalitet och är relationsskapande. Målet med CRM-strategin är att göra kunden mer nöjd lojal och lönsam. Europolitan skall ha den bästa lojaliteten och vara nöjdast vilket de är idag. Idag har man inget mål som är nedtecknat i siffror men det är något man arbetar på att ta fram. Idag gör man nöjd-kund-index-mätningar där man får svart på vitt hur nöjd kunden är. Man frågar bland annat hur nöjd kunden är med täckningen. Om då kunden är missnöjd med täckningen så spelar det ingen roll om en tekniker varit ute veckan innan och fått fram att det är 100%-ig täckning, det är det kundupplevda som räknas, även om det beror på dålig telefon, om kunden inte har en yttre antenn på bilen eller om kunden försökt ringa ifrån källaren. Då måste Europolitan informera kunden om vad det kan bero på så att kunden får rätt förväntningar.
Det är viktigt att ha en nedtecknad strategi för att inte tappa kontrollen på verksamheten. Operatörerna skall veta varför de gör vissa åtgärder. Om operatören ringer ut till kunden så skall han veta om att detta är en lojalitetskapande aktivitet så att han veta om sitt värde. När man bygger en mast så skall man veta om att det är för att få nöjdare kunder. Hela koncernen kommer att få utbildning i relationsmarknadsföring.

Mycket i det man gör utgår från NLL och kundprocessen.
Kundtjäst har riktlinjer för hur de skall agera i olika situationer och också befogenheter att fatta beslut i olika ärende t ex att kreditera kunden. Kundtjänst skall känna att man har befogenheter.

Det spelar ingen roll hur kunden kontaktar Europolitan. De kanaler som används mest är telefon, fax, e-mail och brev. Idag används IVR endast i viss utsträckning för kontantkortskunder. Man har haft IVR i större skala tidigare men kunderna ville bli bemötta av en person. Bearnice tror att det ev. kommer tillbaka i framtiden när det gäller snabba saker som man vill

göra, t ex vidarekoppla sin telefon där man inte behöver personlig kontakt. Man tittar även på chatt-verktyg och allt som kan förenkla för vad kunden har för krav.
Europolitan har idag en sida på nätet (hantera.europolitan.se) där tanken från början var att kunderna skulle kunna hantera sitt abonnemang – vidarekoppla, se sitt saldo och vara kundtjänst förlängda arm. Idag kan man inte göra så speciellt mycket men tanken är att utveckla sidan speciellt för att kunna erbjuda tjänsterna i 3G via sidan.
Europolitan tittar även på lösningar av typen call-me-buttons och co-browsing för att i framtiden kunna erbjuda bättre service.
I framtiden kommer kunden, förutom kontrollera sitt faktura och beställa nya tjänster, att vilja ändra sin abbonemang form (t ex byta abbonemangs typ), samt kontrollera vilka tjänster jag har och förfina tjänsterna och koppla till deltjänster. Detta kommer vi se en ökning av i samband med GPRS och UMTS. Tjänsteformerna och abonnemangen blir mer och mer komplexa och kunden kommer vilja att göra inställningar själv och det måste vi låta kunden göra.
All den informationen som Europolitan samlar på sig och utvärderar gör att de kommer att kunna anpassa sina erbjudande utefter kundens profil. En viss typ av kunder kommer att kunna erbjudas en viss typ av tjänster. Europolitan vill kunna ge tips och idéer och erbjudanden beroende på hur man använder sitt abonnemang.
Europolitan segmenterar sina kunder med ett scoring verktyg där olika parametrar talar om hur lönsam kunden är, hur länge har kunden varit kund, vilken provision får vi betala till återförsäljaren, vilket beteende har kunden, vad har den för genomsnittsfaktura osv. På detta sätt ser vi vilka som är våra mest lönsamma kunder. Sen måste man ju väga in frågan om vilka som är våra mest strategiska viktiga kunder, vissa har varit kunder i 10 år och skall kanske premieras vid ett 10 år jubileum.
Systemen och verktygen blir mer och mer viktiga. Det är systemen som hjälper Europolitan att bli effektiva och kunna hjälpa kunderna. Det mesta är egenutvecklat, på senare år har man köpt in färdiga system som man vidareutvecklat. Billingsystemet ligger till grund för alla andra system och mycket av arbetet utgår från billingsystemet. Generellt sett ökar kraven hela tiden och integration är a och o när det tillkommer nya system.
Bearnice tror inte att det kommer att behövas några nya stödsystem för att ta hand om kunden i samband med 3G men det är lite för tidigt att svara p. Men man måste ju kunna hjälpa kunden med olika videoklipp osv och då måste ju kundtjänst kunna se det också.
Bearnice tror heller inte att det kommer att ske några stora förändringar i och med 3G ur ett CRM-perspektiv. Det kommer troligen vara samma gamla vanliga processer med mycket små förändringar. Möjligen kan kunden komma in som kund och teckna avtal på ett nytt sätt med den nya tekniken då blir det naturligtvis ett annat ingångsflöde i processerna. Dock är det lite för tidigt att svara, just nu tittar man mest på vilka tjänster man kommer att erbjuda.

Vi visar bilden nedan som Andreas och Mikael fått från Accenture:



Enligt Bearnice så verkar den stämma bra. Europolitan kommer att anlita olika content providers för att tillhandahålla olika tjänster. Det ser vi händer redan idag med I-Mode i Japan där det finns flera content providers där DoCoMo inte ansvarar för tjänsten. Detta kommer säkert att ställa nya krav på Europolitans sätt att hantera detta.

Allt som kunden undrar skall kunna besvaras av kundtjänst. Kunden skall ha EN kontaktpunkt med Europolitan. Enda undantaget är komplicerade data och Internet tjänsterna där man skall göra felsökningar osv.

Rent allmänt så blir det allt viktigare att företagen har en CRM- strategi nu när kunderna blir allt mer ’rörlig’ men det ställa större krav på telebranschen speciellt i samband med den avreglering som sker. Barriärer som t ex att man måste byta telefonnummer vid byta av operatör försvinner vilket gör att man måste försöka få emotionella bindningar istället.

Bearnice tycker att de processer som återfinns i eTOM - Customer Interface Management, Sales, Order Handling, Problem Handling, Customer Quality of Service [QoS] Management, Invoicing and Collections, Market Fulfillment, Retention and Loyalty ser ut att vara korrekta.

Även i processer som inte har direkt anknytning till kunden så är det viktigt att ha med ett kundfokus så att man kan se vad processen ger för värde åt kunden.