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VoIP Revolution

- Strategies to survive the future of telecom

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Preface

We have chosen to write an essay about the Telecom market and the change it is undergoing due to the new technology of VoIP. Researches have been made to find out what strategies different kinds of players use to survive.

We would like to thank our respondents, Karin Ström at Telia AB, Petter Östlund at Com Hem AB, Ad Labrujere at KPN and Marinus Neervoort at UPC for cooperating. We also want to say thank you to our teacher Allan T Malm and our opponents for guiding us in the right direction.

Marcus, Sara and Jeroen

Abstract

Title: VoIP Revolution - *Strategies to survive the future of telecom*

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Advisor: Allan T Malm

Five key words: VoIP, IP-telephony, Strategies, Telecom, Triple Play

Purpose: "Our Purpose with this essay is to research what effects VoIP have on the Telecom market and what strategies the different players have for competing and surviving them".

Methodology: Telephone interviews with key players in the Telecom markets of Sweden and Holland. The method was chosen to give the authors the opportunity to compare companies with different strategies and on different markets.

Theoretical perspectives: Market strategies, Strategic advantages, Counterstrategies, Survival strategies and Strategies for Growth

Conclusions:

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1 Introduction

In this first chapter the author's interest in the subject will be described along with what contribution to science this essay will make. The chapter will contain the problem and purpose of the essay and a description of the technologies in the Telecom industry. Last in the chapter will be a disposition for further reading of the essay.

1.1 The Telecom Industry

The globalization and the technological development are creating an uncertain world for today's companies. Customer needs change more and more frequently and companies in all businesses align or break up at an increasing pace. They only thing that seems certain is that the companies should not be certain of their own situation (Stevrin, 1991). There comes a time in all industries when this become so evident that companies are unable to cope with it. Companies can only contain a certain expertise and therefore it can be very difficult to predict the coming of a new technology. This is what has happened in the telecom industry. Old player's lack the knowledge of the new technology and are seeing them threatened by a number of first movers. What has then created this change?

For a century, people have relied on the dial-up phones and the telephone lines in order to communicate with each other. Whether it was a long distance call, a local call or an international call, large telephone companies have earned high profits of the human needs of interaction. Monopolies have risen and deregulation has been necessary in order to sustain competition. But the Telecom market is changing, in the backwaters of broadband technology; a new way of communicating has arisen: Voice over Internet Protocol (VoIP). By using the existing network of broadband cables, new players are now offering telephone services at a fraction of the price offered by the traditional telephone companies, creating shockwaves and movement in every corner of the market. Companies on the Telecom market are standing at a crossroad, trying to decide which strategic path to take.

This technology revolution has many names; IP-telephony, Internet Telephony, Voice over IP (Internet Protocol) or simply VoIP. It basically means phone calls are distributed over the Internet, which creates a number of advantages. Customers are normally used to pay more the further the distance is, especially when it comes to international calls. On the Internet there is no such variable for distance. When we have paid for entering the net, it costs just as much to reach a site next door as one on the other side of our planet. As said above there is a significant benefit of lower costs for users, but also the easy implementation of innovative services, the opportunity of increased flexibility and the possibility of global use.

The technology change in the Telecom market has not only created an increase in competition but also a new set of competitors. Traditional telecom companies like Telia in Sweden and KPN in Holland with their well-known brands and large customer bases are now facing competition from companies with other specialties. In Sweden for example cable companies like Com Hem offer the service of IP-telephony along with TV and Broadband distributors like Bredbandsbolaget offer high speed Internet with IP-telephony and offer TV from Viasat. Competing in VoIP is also smaller specialized companies like for instance Norwegian company Telio. However it is difficult

for foreign companies to enter the market since they need access to some kind of net. In addition to this the company Skype is offering free software based telephony over the Internet. The new trend on the market, known as , means that companies offer both TV, broadband and telephony (Augustsson, 2004). According to Augustsson (2004) Telia is to counter that by providing TV already this winter. This surfaces a lot of questions for the future. What will the modern distributor of telephony services look like and what strategy will succeed? Are these different competitors going to end up with the same customer solutions or do they have different visions for the future?

1.2 Problem background

An interesting question is which competitive advantages will be important in this ever-changing environment. In the article "the quest for resilience" Hamel & Välikangas (2003) point out that a well known brand, deep industry know-how, access to distribution channels and physical assets, are still of enormous value to a company in the new market environment. On the other hand Hagel & Singer (1999) suggest that such advantages as size, reputation and integration have begun to wither and that the new markets impose new advantages such as creativity, speed and flexibility are more important. Because of these opposite opinions it is hard to determine which qualities are crucial to hold in the new market competition. Can traditional players catch up and gain the necessary knowledge about VoIP and if they do, what strategies can the new companies use to sustain their current market position? What strategies are used on the market and how are the different players working against each other? Are the traditional companies prepared to take on the new technology and the new competition and can the new smaller players stand up to the large and established companies? Who are going to win and who will be cut out?

1.3 Problem

The discussion above leads up to our research problems:

- Examine how traditional companies respond to the new threat of the VoIP-technology.
- Examine what strategies the new companies on the market can use to maintain their first-mover advantage and keep their position in the future.
- Analyze if there are any differences in strategy between Swedish and Dutch telecom companies.

1.4 Purpose

Our Purpose with this essay is to research what effect VoIP has on the Telecom market and what strategies the different players have for competing and surviving them.

1.5 Key words

The Telecom market – When we write "the Telecom market" we mean all the markets where telephone operators are active. As said in the introduction the Telecom market is changing into a market where cable companies and Internet providers are also active.

VoIP - Short for *Voice over Internet Protocol*, a category of hardware and software that enables people to use the Internet as the transmission medium for telephone calls by sending voice data in packets using IP rather than by traditional circuit transmissions of the PSTN. One advantage of VoIP is that the telephone calls over the Internet do not incur a surcharge beyond what the user is paying for Internet access, much in the same way that the user doesn't pay for sending individual e-mails over the Internet.

IP-telephony - Another name for VoIP.

ADSL - Short for *asymmetric digital subscriber line*, a technology that allows more data to be sent over existing copper telephone lines

The copper net - This is the network of fixed telephone lines that exist in every country. Telia owns the copper net in Sweden and KPN owns it in Holland for example. Prior to VoIP all calls went through the copper net.

The cable net - The cable net is a network initially established to provide cable-TV but it is also possible to provide Internet through it and thereby VoIP

The fibre net - A new network consisting of fibre cables. At the moment only established in larger cities. The fibre net enables customers to receive high speed Internet and thereby also Telephony.

Triple Play - A new word in the Telecom market. Triple Play means that a company provides Telephony, TV and Internet.

OPTA - The regulating authority in the Dutch Telecom market. OPTA regulates compliance with legislation and regulations in the areas of post and electronic communications. The legislation and regulations are intended to promote competition on these markets, resulting in more choice and fair prices for consumers.

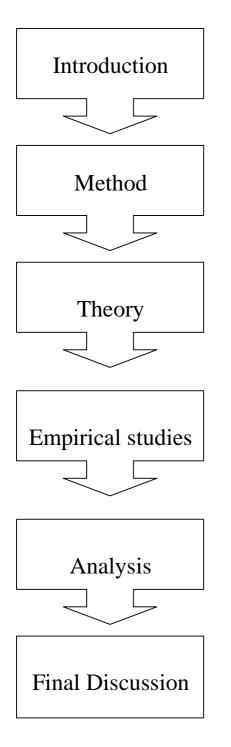
PTS - The Swedish Postal and Telecom board, PTS, whose goal among others is to diminish network effects in the Telecom market. The PTS issued the new law of electronic communication in 2002, which stated that the large companies of the Swedish Telecom market, Telia Tele2 and Vodafone were forced to connect their network with any other company that wants to.

Incumbents - The traditional phone companies, KPN and Telia.

Challengers – The new players on the Telecom market, UPC, ComHem, Wanadoo and Bredbandsbolaget.

Footprint – The network area of a company.

1.6 Disposition



In the first chapter the interest of the subject will be described. The chapter also contains the problem and purpose of the essay along with a description of the technologies at work in the Telecom market today.

In the second chapter we discuss our method and all the choices and considerations that were made in the search for knowledge. This chapter will also contain the used methods for collecting and interpreting data.

In the third chapter is divided into different parts that are all connected. The parts are general strategies, counterstrategies and strategies to stabilize and grow. All Strategies are needed in the different stages of a technological revolution.

In the fourth chapter the empirical studies of the chosen companies are presented. It contains of markets studies of the Swedish and Dutch markets as well as various interviews with the key players in them.

In the chapter the theory and the empirical material will be analyzed. Comparisons between the companies will be made and the material will used as ground for conclusions about the Telecom market today and tomorrow in the final chapter.

2. Method

This chapter is about what in Greek means' a path that leads to the goal" (Kvale, 1997, s.3). We are talking about the method, about all the choices and considerations made in the search for knowledge and about what strategies are used in the Telecom market today. This chapter will also contain the used methods for collecting and interpreting data.

2.1 General Method

Initial work with the essay was all about trying to understand the terminology and the connections between the different technologies in the market. We found that there is a lot of competition going on within telecom. We decided however to limit ourselves to the strategies of those companies who provide telephony for home users. Mobile telephony and the race there between IP-technology and 3G was some of the things we decided to rule out. Therefore we haven't asked questions about these divisions to our respondents. We find this interesting but our purpose with this essay wasn't to find out in which direction the technology is heading but rather how companies in a dynamic market can act when they are facing changes like new technologies and new competition.

Our course literature in Strategic management provided the foundation for the theoretical base. We completed this with other articles and books. We found that since our purpose was to find out the strategies of different companies we needed a certain depth to the study. The fact that there are not so many important players in the Telecom market of each country also ruled out the possibility of a quantitative study. Thurén (1991) writes that a qualitative study gives the author a better possibility to interpret and reflect upon the collected data. This is what we wanted and we decided that case studies of each company were to be made, containing interviews with people holding the knowledge we wanted. Since one of the group members comes from Holland we decided to interview companies of the same type and relative size from both countries. This would give us the possibility to compare not only how the different markets affect the companies but also compare between two companies in the same situation.

We contacted the chosen companies by calling their headquarters and were redirected to someone with the knowledge we needed. Most interviews were scheduled only about a week after our initial call. However we were not able to get interviews from Bredbandsbolaget and Wanadoo. These organizations are small and in both cases they only had one person we could talk to and he was so busy that he didn't had time to cooperate. We still chose to keep them in this essay because we believe it gives us an interesting ground for analysis to have the Internet providers as well. Before the interviews an interview guide was created that handled the different topics in the theory, which hopefully could answer the problems and purpose for this essay. We also decided to find out as much information on all the companies before we contacted them. This created the sufficient knowledge to answer the right questions and understand the problems each company had. Finally what we did was to analyse and draw conclusions upon the data we received.

2.2 Choice of theory

Since the Telecom market is changing rapidly, literature about the market and the different technologies expires very fast. Therefore the Internet was used to get the latest information and a lot of references and data were also received from the course literature in Strategic management and from the literature at the library at Lund University. Different search engines, like elin@lund and Lovisa, were used and some of the keywords that were used are; IP-telephony, VoIP, telephony, market strategies, telecommunication and competitive advantage. This way the necessary data was gathered from different scientific magazines on the Internet.

Since our purpose was to look at company strategies a certain focus has been put on literature treating this. The theory is therefore discussing different strategic alternatives and approaches that can be applied in different situations on the market. The theory chapter starts with a description of the market, were DÁveni (1994) explains how a competitive market works and how companies can compete on these markets. Strategic advantages are then treated and are focusing on how companies can get competitive advantages and how companies can use and approach these advantages.

The chapter then continues with strategies to counter new revolutions. This mainly focuses on how traditional companies according to DÁveni (2002) can act towards revolutions that threatens their existence. The next part, surviving strategies, discusses how companies can get out of different crises and what internal strengths are important to stay alive and competitive. The last part of the chapter is about growing. The chosen theories are in this way showing the different strategies that can be used at different stages of competition and situations. The disposition of the theory chapter can be seen below.

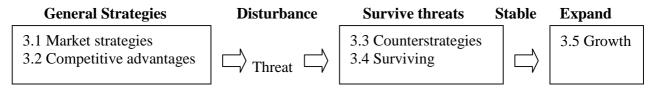


Figure 2.1. The layout of the theory chapter.

2.3 Choice of companies and respondents

The purpose with this essay was to examine the strategies that are used among telecom companies on the market today. The study is built on an investigation with four interviews and six different telecom companies and these have been chosen according to following criteria;

- 1. Product focus
- 2. Market position
- 3. Location
- 4. Respondent job description (knowledge within the company strategy)

The first criteria were chosen so that comparisons between strategies of companies that are focusing on different products and had access to different knowledge could be made. Three different kinds of companies were found on the Telecom market; traditional telephone

companies, cable companies and Internet providers. To be able to get hold of companies that would be interesting to look at from a strategic point of view the second criteria, market position, were chosen. Companies that have larger market positions, that is seen often in the media and that have a well known reputation on the market were chosen to be certain that they are strategically aware of the market and constantly working with strategies.

Two similar developed markets, the Swedish and the Dutch, were chosen to be able to make comparisons between strategies of companies in similar positions and with similar backgrounds. We found it interesting to study two markets and the fact that one of our group members is Dutch made it more accessible to study that market.

The next problem was to choose the right persons for the qualitative study. Strictly random procedures as used in quantitative studies just are not legit. Instead as Jarlbro (2000) puts it, the choice of interview persons should be based on careful strategic and theoretical considerations. Patton (1990) writes that a meaningful selection is a must to receive relevant answers. This means that persons with a lot of information that can solve your problems should be chosen in front of others. The last criterion was therefore that the respondent had to have knowledge in the company strategy. This would give us both the information we wanted as well as accurate data.

The companies we chose are Telia, Com Hem and Bredbandsbolaget in Sweden and KPN, UPC and Wanadoo in Holland and the following companies and respondents were interviewed:

- Ad Labrujere, Programme-manager of New Voice at KPN
- Marinus Neervoort, Product manager of telephony and interconnect at UPC
- Karin Ström, Senior project leader at Telia
- Petter Östlund, Manager of the telephony division at Com Hem

No interviews were made with Bredbandsbolaget and Wanadoo.

Telia and KPN represents the two traditional telephone companies of the markets and were found interesting because we wanted to find out what actions they are taking as industry leaders. Com Hem and UPC as the cable companies were chosen because they have their own networks and have therefore the same competitive advantage as the traditional incumbents. Bredbandsbolaget and Wanadoo are the two biggest Internet providers in both countries and are offering VoIP through their ADSL connection to their large customer base.

Due to the fact that we wanted to speak with people that are working full time with the subject at the head quarters, it was difficult to get personal interviews between four eyes in the near area. Therefore telephone interviews were made. The companies were contacted in advance and by telling them what the essay was going to be about, they could get us in contacts with persons that had the knowledge in the area. Since the companies were in two different countries it was natural that the one of us that spoke Dutch made the interviews with the foreign companies.

2.4 Method Analysis

How correct and trustworthy the essay is can be measured with two factors; reliability and validity. The validity shows how effective the investigation has been, which means if the examination is measuring the things that are meant to be measured (Lekvall & Wahlbin, 1993). The reliability shows how trustworthy the essay is and two examinations with the same purpose should therefore give the same result. If no remarks can be made neither on the reliability nor the validity the method has been reliable.

The best way to get a deep insight and a connection and trust to the respondent is to have a personal interview between four eyes. The respondents we wanted to speak to were not located close to us so that became impossible. Therefore telephone interview were made instead, which made the interviews more impersonal. The respondents were all working with strategies or within the management of telephony. Most of them had a lot of experience; only Petter at Com Hem had only four months experience as manager. The focus in the essay; strategies, is a subject that companies often do not want to speak about or reveal to the outside world. We began every interview by telling the respondents to tell us if they could answer our questions or not. The respondents were very open and never hesitated to the questions that were asked, but we are aware of that they might have kept some information for us. We sent the questions in advance so that the respondents could prepare and get some idea of what we wanted to talk about. The questions were based on the theory part so that we would not slide far away from the subject and stay as precise as possible. We also tried to make them objective, not leading in any way and also well and easy formulated so that the questions could not be interpreted more than one way. Because different persons of us made the interviews, the interview guide also helped us get a similar material from the interviews to work with. A tape recorder was used on some occasions where it was possible. It made it possible to prevent misunderstandings and afterwards be able to go back and ensure everything that had been said.

It was off course a setback not being able to interview the broadband providers but we still believe we could analyze their strategic measures and we did not want to talk to someone who had no knowledge in the area.

3 Theory

A changing market sets new roles for all players (Porter, 1996). Companies have to be flexible to respond rapidly to competitive- and market changes. The different strategic approaches to stay competitive on these dynamic markets are presented in this chapter. Also how companies can act on intensive markets, counter revolutions, survive changes and keep growing.

3.1 Market strategies

The Telecom market is a dynamic market where D'Aveni (1994) explains that adaptive, aggressive and innovative companies can move in fast. This threatens to erode the advantages of big and well-established companies (D'Aveni, 1994). This strong competition, hypercompetition, is a state between perfect competition and where companies avoid competition (D'Aveni, 1994).

3.1.1 How to compete

D'Aveni (1994) says that traditional strategies can no longer be implemented on companies in dynamic markets. Company leaders often assume that the competitive advantages a company has will remain forever. D'Aveni (1994) however claims the opposite; that no competitive advantage can be kept forever and that in fact trying to keep the advantages decreases the company's real competitive strengths. Advantages can be short-lived and companies must continuously and creatively search for new advantages (Day, 1984). When traditional strategies are about creating advantages D'Aveni strategy is also about actively eroding your opponents' advantages and creating a series of temporary advantages. D'Aveni (1994) claims that instead of creating stability the company's goal should be to take down the status quo.

New products and new technologies creates market disturbance and prevents all markets from entering the state of perfect competition. Instead according to D'Aveni the state of hypercompetition is reached. Hypercompetition is a state where the products and technologies create temporary competitive advantages which enhances the competition (D'Aveni, 1994).

A strategy in hypercompetition is having a dynamic view that is founded on three ground principles, D´Aveni (1994) continues. The first one is that all actions create counter actions. The second one is that all actions are relative. The value, the risk and the result of every action must be seen in relation to the competitors´ actions. The third principle is that companies have to calculate the long term effects of every action to see how they might evolve and to understand what direction the action might take. (D´Aveni, 1994)

Companies can according to D'Aveni compete with four different factors or arenas; price and quality (1), know-how and timing (2), building and destruction of business territories (3), and collection and neutralization of capital strengths (4). When the advantages of the first factor have eroded or are not possible companies move to the second and so on. The development and aggression of these factors have increased and intensified the competition (D'Aveni, 1994).

3.2 Strategic advantages

A company can compete and get a competitive advantage in several ways. One way is becoming or being the first mover (Schilling, 1999), but also the second movers have their advantages (DÁveni, 1994).

3.2.1 First, - and second mover advantage

Timing is important because even early or superior technologies may be unable to gain foothold on the market (Schilling, 1999). Therefore small and random events can have a large impact on the final outcome. If for example one product gets ahead by chance, it tends not only to stay ahead but also even increase the lead (Arthur, 1994). A firm can by just some fortune gain a high proportion of their market and early on be able to outdo its rivals. As a company grows it can increase its production and thereby the cost of the product falls and so does the benefits of using them. When one brand gains a significant market share people have a strong incentive to buy more of the same product to be able to exchange information with people using it already. This way the company increases its installed base (Arthur, 1994).

Porter (2001) points out though, that the first mover advantage cannot be applied on every market and every time. Porter (2001) calls it the myth of the first mover advantage because with the globalization and the Internet technology people think that it is easier to get competitive advantages, when in reality it is not. This is a result of the five forces getting more power not the company itself. Therefore strategic positioning becomes more important than ever (Porter, 2001).

In every strategic move companies can choose to act first or wait (D'Aveni, 1994). To be the first mover can have a lot of advantages, some of these are:

- *Answer delays* -As first movers companies can make a lot of money as monopolists if it takes some time for the followers to answer.
- Scale First movers can serve a wider market before the followers arrive.
- Rumour First movers can establish brand loyalty.
- Advertising and packed spaces The followers might find it hard to find available advertising and distribution channels.
- Installed base First mover can have the time to build a large customer base.
- *Learning effects* First movers can move faster than their competition along the production, and experience curve.

To be effective first movers have to develop certain know-how like innovation skills, customer knowledge and ability to penetrate markets and stay flexible in the production (DÁveni, 1994). There are not only advantages of being a first mover, it is also very risky. The advantages of first movers are very fragile and are always threatened by imitation. Being the close follower can decrease the risk that comes with being the first mover. Imitators often gain more from an innovation than the company that developed it. Therefore there are also many advantages of being the follower according to D´Aveni (1994). A follower can learn from the first mover mistakes, avoid huge developing costs and concentrate on processing instead. This can give the

follower a possibility to get higher quality or efficiency. According to D'Aveni (1994) strategies for followers can be implemented most effective when the first mover cannot satisfy all customer segments or customer needs or have a product that has imperfections. The many strategies that followers can apply are;

- Pure imitation
- Add finesses
- Cut the prices
- Same product but different
- Redefine the product
- Brand and quality products
- Compatible products.

Even though there are many strategic choices for the followers to copy the first mover, the first mover can make it harder for the followers to imitate. When the first mover develop and market their products or services they often build up barriers and smoke screens for the followers (D´Aveni, 1994). D´Aveni (1994) writes that there are nine things that put off the followers; deterrent pricing, secrete information or know-how, scale, contract relations with suppliers, retaliation, patent, co-packed products, reorganization costs and restrictive licensing.

3.3 Counterstrategies

Companies on traditional markets can act in different ways towards new coming standards or other threats to defend their market positions. In the article "The Empire strikes back" Richard D'Aveni (2002) gives different strategies for industry leaders to respond to a revolution. These strategic responses fall into five categories; containment, shaping, adopting, neutralization and annulment.

Companies that spot the revolution in an early stage can try to contain it, the **containment** strategy. To slow the revolution down or to draw the attention away from it, companies can increase switching costs by loyalty and incentive programs, distribute a lot of discounted merchandise that crowds new products off the shelves or aggressively launch new products. If the early approach does not work it gives the company time to try out another. When the revolution no longer can be contained companies have to use the second approach; **shaping** strategies. This strategy is about co-existing with the new, influence it with venture capital or act as supplier to the revolution. If shaping does not eliminate the revolution and it is likely to succeed, leaders have to think about how to **absorb** the new into their own corporation. "If you can't beat them, join them". In this case the revolution neither destroys the company's existing competence and strengths nor makes it abandon its existing product and business models. The best way to act is as if the revolution had been the company's own idea.

When the revolution has spread and it can not be contained, shaped or absorbed the company has to take more aggressive action by **neutralization**. Industry leaders can either do that through legal actions, giving away the new benefit for free or by investing in R&D to improve their existing products, technologies or business models. When the threat of the revolution is

unstoppable, there only exist one last strategy; **annulment**. Companies can either leapfrog the revolution with a better one or step aside from it altogether. These are high risk strategies, takes time to deploy and come with the danger of cannibalization. If companies succeed they get the benefits of a first-mover. More than one of these five counterrevolutions can be used at the same time to decrease the threat. (D´Aveni, 2002)

According to Brown & McDonald (1994) there are four main directions companies can take when changing or defending their competitive position. The first one is developing and building, the second maintaining and holding. The third direction is defending and the last one withdrawing. To obtain market leadership, a company needs to have a number of characteristics; the largest market share, an ability to influence market trends and be recognized by the market as the leader (Brown & McDonald, 1994). To be successful as a market leader the company must learn to say "No" to certain markets, some types of customers, some service offerings and certain growth opportunities (Terrill & Middlebrooks, 1999). Leaders must dominate specific segments and recognize that they can't do "all things to all customers".

3.4 Strategies for surviving

Strategy is about surviving in the long run (Hax & Wilde, 2001). Markets go through changes and companies have to adapt and find ways to fit in and to stay alive (Prahalad, 2004).

3.4.1 Surviving qualities

For a long time industries like the computer industry and the telecom industry was dominated by large, vertically integrated companies that had scale advantages and large installed bases (Hagel & Singer, 1999). Hagel & Singer (1999) mean that these advantages such as size, reputation and integration have begun to wither and that other advantages like creativity, speed and flexibility have become more important. However in the article "the quest for resilience" Hamel & Välikangas (2003) point out that a well known brand, deep industry know-how, access to distribution channels and physical assets, are still of enormous value to a company despite the new economy challenges. Traditional companies normally strive to keep their core processes bundled together. That way they have to compromise the performance of each process because scope, speed and scale cannot be optimized simultaneously (Hagel & Singer, 1999). Smaller, more specialized companies on the other hand, try to optimize the activity they perform. That way they don't have to make any trade-offs. This gives the company an advantage over the integrated larger company

Capital strength is an important quality to have and the only possibility when companies have emptied their competitive opportunities with price and quality, timing and know-how and the barriers have been overcome (D'Aveni, 1994). In these situations large companies have some advantages for example endure losses during a long time when small companies would soon be bankrupt. Capital strengths can be used during a low price launch or finance high quality to the same price. It can be used for development, innovation and advertising or to expand distribution channels without raising the product price. Capital does not only give companies room for

imperfections but also political power where they are located. There is no doubt that capital is an important strategic weapon but similar to the other strategies, it does not last forever.

3.4.2 Surviving a shake-out

There are two kinds of shakeouts; the boom-and-bust syndrome and the seismic-shift syndrome (Day, 1997). A seismic-shift syndrome is a shakeout that strikes stable and mature industries. It is caused by a removal of an isolating mechanism. The mechanism can take the form of a deregulation, globalization or a technological discontinuity. The boom-and-bust syndrome strikes hot emerging markets. The boom is caused by a big attraction to the market and the bust by decreasing margins. There are two kinds of outcomes for well-positioned companies after a shakeout. Either a company land on their feet after a bust, so called adaptive survivors or prevail the seismic-shift, the so-called aggressive amalgamators.

Boom and Bust

During a boom companies grow faster than they can handle (Day, 1997). A new management style is needed and the successful companies often hire strong subordinates with past experience in larger organizations. It is also important to have enough resources to stay competitive, for investing, recruiting and training. As the market changes new controls; new systems and processes are needed to handle a complex organization.

Seismic shift

Companies that survive a seismic-shift develop the right business model for emerging environments, rapidly absorb smaller rivals, cut operating costs and invest in effective technologies. Strategies for aggressive amalgamators are fast integration to achieve economics of scale, cost reduction through information technology, aggressive debt financing and leadership in offering value added services. Niche strategy is also one way for smaller companies to profile themselves. They can also buffer by joining alliances and pooling resources with other companies. Day (1997) also proposes that even if none of these alternatives are possible a company can still come out ahead if they have the courage to face the future honestly. Many times that means selling the company at the right time.

3.5 Strategies for growth

Many times staying alive is not enough. Companies also want to grow. According to Stevrin (1991) there are five ways that companies, deliberately or not, apply to grow. The first one is "growing on your own". The companies that usually apply this are in comparison small and are probably going to stay small if they continue with it. The second approach is "to grow with others". This means an open relationship with the environment and there is no sharp line between the company and it's surrounding. The third strategy is "to grow through acquisition", which means taking over other companies and companies finds this a faster way to grow than on your own or with others. "To grow through other" is the fourth approach and applies when a company focuses on creating growth for others and indirectly grows itself. The last strategy is "to grow

again" and means consciously take the company in another direction and trying new ways of growth and strategies.

Expanding the business is to increase the sales volume and there are four ways to do that on your own (Day, 1984). Through market penetration, these means increase of existing customers, attracting competitors' customers and discourage new and existing competitors. Other ways to increase sales are through product development, market development and forward integration. According to Ahrens (1992) there are only two ways to double the sales; through acquisition and by own force with strong market and product position.

Entering new markets are opportunities to expand (D´Aveni, 1994). Stepping into another territory means to enter "competitor home ground". It is difficult to inter a new territory because the companies there have territory advantages like local customer knowledge, customer loyalty of a local brand, lower costs due to work over short distances, governmental barriers for foreign companies, control over the local distribution channels, local habits, unique advantages like lower work costs, and dominant position on the local market. These advantages are very strong, but not unconquerable to strong resource based companies, but make it harder for companies to enter new markets. There are a few factors that determine the success of entering another business territory but again also strategies for the incumbents to defend its territory (D´Aveni, 1994, p.150-158).

3.6 Summary of the theory chapter

Market strategies	Companies should keep changing their strategies and keep looking for temporary competitive advantages.
Competitive advantages	Both first and second movers can take advantage of their situation. First and second movers have to take action relative to what their competitors do. The seven aces help companies to achieve temporary advantages, create disturbance and take initiatives on the market.
Threat	A threat can be anything from a new technology, deregulation to increased competition.
Counterstrategies	Industry leaders can approach a new revolution in five different ways; containing, shaping, absorbing, neutralization and annulment.
Strategies for surviving	The surviving qualities are contradictory and companies might have use of their brand, know-how and stableness as well as flexibility and creativity.
Strategies for growth	Companies can grow by them selves, with others, through acquisition; grow again, through market and product development, integration and market penetration. Companies have to protect their business territories and also exploit new areas to grow.

4 Empirical studies

In this chapter the empirical studies of the chosen companies are presented. It contains of markets studies of the Swedish and Dutch markets as well as various interviews with the key players in them.

4.1 The Swedish Telecom market

Telia is the largest operator in Sweden. For years the company had an almost monopoly like position in the market. Telias main source of income has always been the fixed phone net, which they own. Every person who wants to receive phone calls to their home has to pay an amount to Telia. Telia is also the provider of telephone numbers. This off course have created massive revenues for Telia even though they were somewhat controlled by the government due to their monopoly. But times are changing. At this date customers don't have to pay anything to Telia. Customers can choose the operator of their liking, the company that can provide them with the solutions and services that fit their needs (www.pts.se).

According to PTS the Internet services has increased by four percent the first six months 2004. The fixed telephone services have decreased with five percent. The 30th June 2004 there were 5 744 000 users of the fixed telephone net and less than one percent of these users belonged to an operator besides Telia. PTS estimates that there were 56 000 IP-telephone users by June 2004 that is an increase with 183% the six last months. Today there are approximately 20 operators that provide IP-telephony to Swedish customers (www.pts.se).

Until recently the Swedish map of networks was quite simple. Telephony went through Telias copper net and TV went through the large cable companies. When broadband came along however this map began to change since that service is provided through the copper net, the cable net and the newly built fibre net. Suddenly the copper net had received competition which is now booming through VoIP and (Lindroth, 2004). According to Lindroth (2004) these companies have most power on today's market:

Telia

CEO: Anders Igel

Owner of the copper net with a total of 5, 44 million applications that each year give them 8 billion kr in revenue. At risk of loosing many of these customers to VoIP.

Com Hem

CEO: Gunnar Asp

Owners of the largest alternative net to Telias that can now fully compete. Reaches at the moment 1, 4 million households out of witch 700 000 today can receive telephony and broadband besides TV.

Bredbandsbolaget

CEO: Peder Ramel.

Owner of a fibre net with 300 000 households connected that this year expanded by 40 000. Offers TV from Viasat as well as telephony with 60 000 telephone customers. Claims they are the only provider of *real* broadband.

UPC

CEO: Ulf Johansson

Owners of a Cable net with 280 000 customers, all with the possibility to receive broadband. Are not yet offering telephony in Sweden but it is likely to come since UPC provide it on other markets.

These are the revenues companies fight for according to Lindroth (2004).

Telephony: Application fee of approximately 125 kr/month plus traffic fees.

TV: Cable-TV fees from 150 kr/month and up.

Bredband: from approximately 250 kr/mån

Lindroth (2004) estimates the Swedish market to be worth about 23 billion kr/year.

TELLA

4.2 Company presentation of Telia AB

This chapter contains information gathered from various WebPages and articles about Telia and also an interview made with Karin Ström, senior project leader at Telia AB.

4.2.1 History

Telia was founded in 1853 as Televerket and had until 1 July 1989 a monopoly in telephony and net build-up in Sweden. A certain competition existed in the childhood of telephony, but Televerket bought every other operator. The company also for many years refused to connect other equipment than their own to the fixed net. (home.swipnet.se/~w-18231/telia/monopol.html). Telias special market position started to change in July 1989. Their assignment from that date on was to work against satisfying the society's and the peoples need for telephony. In 1990 they were deprived of their right to approval of new equipment. In 1993, PTS was founded and Televerket was remade into Telia. This has created a better opportunity for others to compete in the mobile market and as written in the previous chapter, Telia no longer has a monopoly over the fixed net.

Telia was noted on the Stockholm's stock market on the 13th of June 2000 to the stock price of 85kr (www.di.se). The Swedish Government kept 70% of the stocks. In December 2002 Telia was fused together with its Finish equal Sonera. The EU-Commission approved of the deal under the condition that Telia sold Com Hem and their mobile-network in Finland. The fused company is named Telia Sonera AB, but in Sweden the activity goes under the brand "Telia". (www.telia.se)

The Swedish Telecom market is as said before undergoing a lot of change. Telephony through broadband is supplied at a growing pace at the same time as more and more Swedes have access to broadband outside of Telias copper net (Lindroth, 2004). Regarding this issue Karin Ström at Telia says:

"IP-telephony did not come as a shock to us"

Karin Ström says that Telia started to compete against VoIP in 2004 by offering services of similar type. The services "Telia alltid" and "Telia fritid" meant that the users paid a fixed amount every month and in return called free on nights and weekends. Telia hoped to draw attention away from IP-telephony and yet again increase the interest for fixed telephony (Karin Ström). In 2004 they went even further when they started offering these services to all their broadband customers (Karlberg, 2004). This campaign created emotions from for instance Bredbandsbolaget who applied with a sue against Telia. CEO at Bredbandsbolaget, Peder Hamel, mean that Telia is abusing its dominant position within fixed telephony to cut prises and thereby win customers on other markets as well, which interferes with the law of competition (Karlberg, 2004)

4.2.2 Profile

Telia is clearly the leading force in Swedish and Nordic telecom. The company offers a broad variety of services in many different countries. Fixed telephony has always been the cash cow, but the company is also offering mobile telephony, Internet access and starting in January, television (www.telia.se). Karin Ström is project leader in the strategic division at Telia and she puts it like this:

"Our biggest advantages are that we offer a wide range of products and thereby cover all product areas on the Telecom market. We cover all areas and also have the largest markets shares within fixed and mobile telephony, Internet and datacom"

The thought that Telias ADSL net is going to provide television have met a lot of criticism (Lindholm, 2004). According to Lindholm (2004) the critics say that the network does not have the capacity to combine all three products. However the large telecom companies of the world have now developed a standard for IP-based home networks. This network will be integrated with the broadband network of the operator and thereby give telephony, Internet access and television to the households. The telecom companies are also planning to raise the capacity of the copper net. (Lindholm, 2004)

Telia is also criticised for not reacting to the threat of VoIP (Lindroth, 2004). ComHem and Bredbandsbolaget are competitors with their own networks and with other products already provided to Swedish households. Some experts see these players as big threats against Telia in the future (Lindroth, 2004) but Karin Ström at Telia is not worried and says:

"We don't see ComHem as a threat in telephony since they have so few customers, our main competitors are Tele2 in fixed telephony and Bredbandsbolaget in IP-telephony and "

Katja Ruud at analysing company Gartner thinks Telia has its blindfolds on. She says that ComHem's network are closing in on two million households and thinks that half of these customers may very well leave Telias fixed telephony (Lindroth, 2004). Lindroth (2004) mean that this would create large revenue losses for Telia just in loosing applications. Then there are also the revenues of those customers calling. Lindroth (2004) thinks that this threat will make the last years progress from Tele2 in the fixed telephony market look like a dust of wind.

The fact is that Telias revenues in fixed telephony decreased by 1,5 billion kronor from 2001 to 2003 and it's still decreasing (Lejonhufvud, 2004). Anna Augustsson at Telia is aware of this and says that it will continue to decrease along with the prices. She says Telia is trying to compensate with mobile telephony and broadband (Lejonhufvud, 2004).

4.2.3 Mission

According to Telia's annual report its goal for 2010 is to be a genuine service company that helps families, companies and other organisations. Telia want to give customers a possibility to use systems networks and services in the way they want, keywords being; safe, swift and smooth (Teliasonera annual report).

On a shorter term Telias mission is to strengthen and enhance the business and its position within the present markets and to keep or increase the market shares (www.telia.se). According to Karin Ström Telia is changing its focus from products to services and she says:

"Our goal is to become a leading service company by profiling ourselves in terms of trust and quality. We aim to be seen as a service company with innovative solutions that will inspire. We also want to be able to guide their customers in an easy way and provide them with easy, modern and relevant services".

Karin Ström implies however that there is a lot to be done within the organization for this to happen. She describes that earlier when Telia was completely government owned the company had more demands on technical terms than in customer and service terms and this still lingers in the organization.

4.2.4 Strategy

Telia is experiencing a tough Swedish market right now. As stated earlier their revenues on fixed telephony are dropping and when we have a look at their annual report we can see that Telias profits on the Swedish markets are dropping overall (Teliasonera annual report). However the company is still making money and mostly it is because of their foreign expansion. Telia has over the last couple of year ventured in Russia and the Baltic (Lindroth, 2004). In July 2004 the company bought the Danish company Orange with over 600 000 mobile customers (Rösnes, 2004). Evidently one strategy is to expand into foreign markets, but how does Telia Respond to the Swedish market? Karin Ström puts it like this:

"Customer solutions is Telias Strategy in both the private and the business sector, and is a big factor in that"

In the company's annual report it says that the price war has increased remarkably over the last years. Telia is working intensively toward making strong customer loyalty connections by making attractive offers, simplifying services and improving it (Teliasonera annual report).

The strategies in Telephony are to provide *Telia Alltid* and *Telia Fritid*. These services is still fixed telephony and Telia does not see VoIP as a threat as long as they are working according to

Karin Ström. She also say that Telia make an evaluation when a new "thing" enter the market and in this case they didn't think that VoIP will erode fixed telephony, just slowly decrease it.

When looking into the future Karin Ström says that it will be difficult to separate mobile and fixed telephony in the future, because mobile telephony is going to be a part of the home telephone. Instead she believes that voice and data are going to be the terms in which people will speak. About Telias future strategies Karin Ström explains:

"We have a strong position thanks to the fixed net, but we will jump on the IP trend as well, because the copper net will not be able to offer certain services that are going to be attractive in the future"

Karin Ström also believes that customer solutions are going to be the most important tool in the future whichever technology comes along.

4.2.5 Products

Telia offers a vide variety of products and we have chosen to limit ourselves to the most important ones in this chapter.

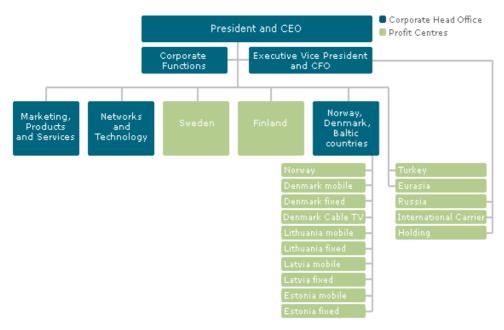
Telephony

	Telia Bas	Telia Alltid	Telia Fritid
Monthly cost	125 kr/month	190 kr/month	155 kr/month
Weekdays 8-18	0,23 kr/min	0 kr/min	0,23 kr/min
Other times	0,115 kr/min	0 kr/min	0 kr/min
Mobile calls 8-18	2,95 kr/min	2,95 kr/min	2,95 kr/min
Mobile calls other	1,95 kr/min	1,95 kr/min	1,95 kr/min
Connection fee (all	0,45 kr/call	0,45 kr/call	0,45 kr/call
phonecalls)			
Start-up cost	675 kr	675 kr	675 kr

Broadband

	Telia 250	Telia 2000	Telia 8000	Telia 24 Mbit
Download speed	250 kb/sek	2000 kb/sek	8000 kb/sek	24 Mbit/sek
Upload Speed	64 kb/sek	400 kb/sek	800 kb/sek	1 Mbit/sek
Monthly cost	279 kr/month	419 kr/month	449 kr/month	449 kr/month
Start-up cost	1390 kr	1390 kr	1390 kr	1390 kr

4.2.6 Organization



Picture 4.1 Organizational scheme of TeliaSonera AB

Two years ago Telia reorganized the company structure by country and Sweden got a new CEO in Anders Igel (www.telia.se). Project manager at Telia, Karin Ström says that there has been an internal change in Telia. Prior the company was more product oriented and had divided the product segments in different parts. Telia was organized after function and technique. The company discovered however that a change had to be done since their vision was to be a leading service company. Karin Ström says that Telia then turned and became a customer-orientated company and today the company work vertically with the different customer segments. That way customer feedback and market knowledge from all the areas can easier be received. According to Karin Ström Telia is horizontally divided into two parts, the product house where they work on offer- and technical development, and the production.

Karin says that Telia also has implemented a new control system that is used by everyone in the company. This means that Telia plan seven quarters ahead and then follow it according to Karin Ström.



4.3 Company Presentation of ComHem AB

This chapter contains information gathered from various WebPages and articles about ComHem and also an interview made with Petter Östlund, manager of the telephony division at ComHem.

4.3.1 History

ComHem has since the beginning of the 80-ies distributed cable-TV to Swedish households. But they didn't become the company they are today until 1999 when they broke free from the Telia organization. As written earlier Telia sold ComHem to be able to align themselves with finish giant Sonera. ComHem started their digital broadcasts in 1997 and has provided broadband access since they became independent in 1999. At this date their cable-network is upgraded regularly in order to distribute not only cable-TV but also Internet, IP-telephony and other interactive services for households (www.ComHem.se)

4.3.2 Profile

ComHem currently provide their services to approximately one third of the Swedish homes (Lindroth, 2004). In the ComHem is going in the opposite direction of Telia. The Company started out with television but is since autumn 2004 providing telephony through the cable net. Petter Östlund, manager of the telephony division at ComHem mean that this gives the company a big advantage against the telephone companies.

"If Telia cuts margins in telephony they will make big losses since this is where they make their money, but ComHem already have the network for Cable-TV so telephony is just a bonus to us.

Therefore we can lower our prices"

Petter Östlund also see it as a big strength that ComHem is already connected to people through TV. He believes it is a big advantage when it comes to reaching customers and also being able to put a price on a service.

Lindroth (2004) see ComHem as a big competitor in the future of telephony and believes they may take away a lot of customers from Telia. This is something Gunnar Asp, CEO at ComHem strives for when he says:

"The competition is increasing and we are definitely after Telias application revenues besides their revenues for tele-traffic"

Petter Östlund says that Telia is the biggest competitor for ComHem due to their big market share and knowledge. When being asked about other competitors he says that Tele2 is a competitor as much as Telia since ComHem is after the fixed telephony users. When being asked about Bredbandsbolaget he says:

"Bredbandsbolaget is not a threat at all, because they are working with another system; broadband and telephony through the telephone hole"

Petter Östlund doesn't see many other companies as competition. He says there are companies coming in from abroad, but nothing of a threat. Petter also mentions Skype, but because it works with another system and the main stream of users is not familiar to that yet, it might be a threat in the future, but not today.

There are no rules or regulations that keep ComHem back. PTS, which is the controlling telecom organisation, is only working in their favour. PTS see to that Telia, that is the biggest and in ways the controlling company, does not abuse their power in any way

ComHem is currently established in 1 400 000 households. 810 000 of these have Internet access from ComHem. The number of IP-telephony users hasn't yet been estimated since it is so new for ComHem. At this date the company only provides telephony in a small number of Swedish cities (www.comhem.se).

4.3.3 Mission

ComHem is a company that wants to profile itself as a safe company with good quality. The idea and the interest of Internet telephony came from USA and Europe. They saw that it was successful and that the customers liked it. Today ComHems vision is to be the leader within home communication. They are first of all concentrating to expand their telephony where they already have cable or broadband customers today (www.comhem.se).

4.3.4 Strategy

As written previously ComHem is clearly after Telias share in the telephony market. ComHem is concentrating their business to the private homes and not the companies. The reason is that today they only have cable nets that cover private homes and not companies (www.comhem.se). Petter Östlund says that ComHem wants to provide a service that is both high quality and to a low cost and makes the similarity with IKEA and H&M. Petter Östlund does not see the telephony business as an expanding one since everybody already have a phone.

"You can get people to call with the new system, but you can't find new callers"

Since the market will not expand ComHem has to be customer focused according to Petter Östlund. He says it will become more and more important to understand and think like the customers. Not until then the company can sell its products. ComHem's recent solution to gain customers and service all their needs is a package the company calls "Com Bo". This is a solution that gives the customer the cheapest of the three services for free. Usually it is the telephone application cost that the customers don't have to pay for (www.comhem.se).

According to Petter Östlund ComHem is constantly working with new strategies and new developments. What he sees as a future product is a universal box that will provide the . He also explains that ComHem have a 3-year budget plan and then every year is divided into smaller plans. Petter Östlund mean that it is essential not to get stuck when the market is changing as fast as it is.

When looking into the future Petter Östlund believes that mobile telephony is perhaps going to expand and be used more by the younger generation of today, but that home telephony is always going to survive. Petter also believes the phones are going to develop and gadgets like sensors and wireless phones are going to be tomorrow's telephone.

4.3.5 Products

When looking at the products ComHem have to offer, it gives a good initial impression. The customer can choose between Small, Medium and Large based on how much they use or want to benefit from the given product. ComHem also give the customer the possibility to combine the products at a retailed price. Here are the prices and information about the products.

Telephony

	Small	Medium	Large
Monthly cost	60 kr/min	80 kr/min	125 kr/min
Weekdays 8-18	0,23 kr/min	0,18 kr/min	0,12 kr/min
Other times	0,11 kr/min	0,10 kr/min	0,09 kr/min
Mobile calls 8-18	2,50 kr/min	2,00 kr/min	1,75 kr/min
Mobile calls other	1,75 kr/min	1,50 kr/min	1,25 kr/min
Connection fee (all	0,45 kr/min	0,45 kr/min	0,45 kr/min
phonecalls)			

Every call made to another ComHem applicant has no connection fee.

Broadband

	Small		Small Medium		ium
Download speed	128 kb/s	250 kb/s	500 kb/s	1000 kb/s	
Upload speed	64 kb/s	64 kb/s	128 kb/s	200 kb/s	
Monthly cost	169 kr/month	225 kr/month	295 kr/month	350 kr/month	
Start-up cost	97 kr	97 kr	97 kr	97 kr	

	Large	
Download speed	2000 kb/s	8000 kb/s
Upload speed	400 kb/s	1000 kb/s
Monthly cost	395 kr/month	445 kr/month
Start-up cost	97 kr	97 kr

TV

	Small	Medium	Large
Number of channels	5	15	36
Monthly fee	29 kr/month	149 kr/month	279 kr/month
Digital box cost	495 kr	1 kr	1 kr
Start-up cost	592 kr	592 kr	592 kr

ComHem also give the customers the option to buy other special channels such as Canal+ or TV1000 for an additional cost.

4.3.6 Organization

ComHem has about 400 employees with offices in Stockholm, Gothenburg, Malmö, Västerås and Härnösand and CEO is Gunnar Asp. ComHem is owned by EQT Northern Europe; a venture capital company that was founded in 1994, today with 50 employees.

Since the new products and services were introduced ComHem has a new owner and is working a lot with educating the staff. The company has been divided into new responsibility centres. Before ComHem was divided into two different focuses; technique and TV, but now it's divided into customer focuses (Petter Östlund).



4.4 Company Presentation of Bredbandsbolaget AB

This chapter contains information gathered from various WebPages and articles about Bredbandsbolaget

4.4.1 History

Bredbandsbolaget was founded in 1998 as a development project within the Internet consultant company Framfab (www.bredbandsbolaget.se). One of the driving forces was former chairman Jonas Birgersson. However when Bredbandsbolaget failed to reach the stock market in 2000 he was replaced (Agerman, 2000). The company's first deal was made with real estate company HSB to install broadband in all their apartment buildings. In 1999 the first customers were connected to the price of 200kr per month. From 1999 to 2002 the company went through a lot of change. Cisco financed the company with equipment worth of 4, 1 billion dollars and two other companies were added to the owner group after buying 2.4 billion worth of stocks. Bredbandsbolaget developed different services during these years and finally in 2002 it was awarded with the award for broadband company of the year (www.bredbandsbolaget.se). Bredbandsbolaget is now fully established and its customer rate growing. In 2004 the company aligned itself with competitor Bostream and became a big threat to Telia on the broadband market (Hård, 2004). Bredbandsbolaget now offer broadband to the speed of 24 Mbit/s.

Experts say that Bredbandsbolaget now is trying to enter the stock market once again. The company's estimated value is between 4 and 6 billion kronor (Blecher, 2004).

4.4.2 Profile

Bredbandsbolaget is the fastest growing company right now. They started their business in 1997 and are already wired in to over 1, 4 million households (www.bredbandsbolaget.se). Their main products are as the name implies broadband access but they are also expanding their services to IP-telephony (Augustsson, 2004). CEO at Bredbandsbolaget Peder Ramel says (Lindroth, 2004):

"Today we have 60 000 telephony customers and we get 100 new customers a day"

The Company has mostly private customers but has started to expand its number of company customers mostly in the big cities. In August 2004 Bredbandsbolaget had a market share of 32 percent in the big cities of Stockholm, Malmö and Gothenburg. Telias share was only 27, 5 percent. In entire Sweden Bredbandsbolaget have a market share of 23 percent against Telias 33 (Hård, 2004).

4.3.3 Mission

Bredbandsbolaget has plans to expand and believe there is a high demand for their product in the market. Their short-term goal is to try and strengthen their position in the market by expanding their existing network (www.bredbandsbolaget.se).

4.4.4 Strategy

The Strategies of Bredbandsbolaget are to keep innovating and develop the capacity of their existing network. They profile themselves as the only company to provide *real* broadband. They target experienced users foremost and state that "Bredbandsbolaget is nothing for beginners". Another strategy is to remain flexible with a small organization to give the company better efficiency and a competitive advantage (www.bredbandsbolaget.se).

Bredbandsbolaget has a strategy to provide TV through their fibre net, catching on to the trend (www.bredbandsbolaget.se). However they have chosen to let experienced television distributors provide it for them. At the moment they offer TV from Viasat but will soon also offer TV from MTG (Blecher, 2004)

Another strategy the company has is to go via the city fibre nets. Swedish cities see IP-telephony as a way to get customers (Lindroth, 2004). Lars Hedberg, CEO of the Swedish city net organisation says that there is a big will in the cities that the nets are being used (Lindroth, 2004). He also explains that IP-telephony and IP-TV are important factors when it comes to filling up apartments.

The Strategy to get people to change into IP-telephony is to have lower prices. When it started the company made sure the prices were always below those of Telia (Augustsson, 2004). When you go to the webpage of Bredbandsbolaget you can still see a comparison between the company's own prices and Telias.

4.4.5 Product

Bredbandsboalget provide Telephony, Broadband and TV, here are the prices and services the products.

Telephony

The monthly application fee is 99 kr. Every call made to another applicant of Bredbandsbolaget has no connection fee.

Calling tariffs		
	Weekdays 8.00 - 18.00	Other times
Calls within Sweden	0,19 kr/min	0,10 kr/min
Calls to Telia mobile	2,25 kr/min	1,35 kr/min
Calls to Vodaphone mobile	2,66 kr/min	1,75 kr/min
Calls to Comviq mobile	2,35 kr/min	1,35 kr/min
Connection fee (all phonecalls)	0,45 kr/call	0,45 kr/call

Figure 4.?. Telephony of Bredbandsboalget (www.bredbandsbolaget.se)

Broadband

Bredbandsboalget offer high speed broadband to the following costs. In addition to these costs there is an initial fee of 495 kr before you get started.

Product	Price
Broadband 24 Mbit/s through telephone hole	399 kr/month
Broadband 10 Mbit/s through fibre net*	320 kr/month
Broadband 100 Mbit/s through fibre net*	595 kr/month

^{*} these applications can only be received if your house is connected to the fibre net.

TV

This service is provided by Viasat. However when choosing to order from Bredbandsbolaget you only have the choice to order Viasat Gold at the price of 299 kr/month. Viasat gold has about 30 channels and the price is the same if you order it directly from Viasat. At the moment it is only the customers connected to the fibre net that are able to receive this product. Bredbandsbolaget say however that TV will be provided to everybody who wants it in 2005 (www.bredbandsbolaget.se).

4.4.6 Organization

CEO: Peder Ramel - former CEO of Viasat

Bredbandsbolaget is owned by a number of venture capital companies. The three main owners are Access Industries, Investor and the Carlyle Group.

Their network is steadily growing but yet they are only 260 employees. The fact that the company remains small makes them a highly flexible competitor (www.bredbandsbolaget.se).

4.5 The Dutch Telecom market

The Dutch Telecom market has traditionally been dominated by KPN who had a monopolistic position on the fixed net market. Since the deregulation of the Telecommunication market and the establishment of the OPTA, the Dutch regulatory authority of telecom, who is monitoring fair competition on the Telecom market, no monopolistic position on the market has been allowed. KPN had to open up its network and give access to any company who wants to act on the Telecom market. A fee has to be paid of course to KPN for the use of its network and to make the connection possible. A number of new providers, such as Tele2 and UPC, have entered the market but KPN still has a 90 percent market share on the fixed net, which consists of more than 7 million households. Tele2 is fully dependent on renting space on a network but we can see that more cable companies who have their own network are concentrating on the Telecom market.

The growth of the use of Information and Communication Technology is expanding within the Dutch society; it is shown in the increasing number of households owning a PC and the more intense usage of Internet. The replacement of analogue Internet connections by faster connections such as ADSL, says something about the (potential) Internet use of consumers (www.cbs.nl). As almost one third of all households with Internet use broadband connections (www.cbs.nl), more services can be offered such as television and telephony. Even though almost all households are provided by these services the growing use of Internet and broadband creates a new market for the different kinds of providers.

KPN is market leader in providing broadband, its subsidiaries; Planet Internet, Het Net and Xs4all have together a market share of 26 percent. When we look at the providers independently, Wanadoo is the market leader followed by @home by Essent and third is Chello by UPC (www.Zibb.nl). Because we have discussed before that the development of the broadband connections is the engine for the development of VoIP, is it interesting to look at the development of the broadband connections and the growth of it. At the moment The Netherlands count 2,8 million broadband connections and is with the Scandinavian countries the top broadband user in Europe (www.zibb.nl). The number of VoIP subscriptions at January 1 2004 was 192.300 (www.vecai.nl). On the business market has 20 percent of the companies with more than 50 employee's plans to invest in VoIP within 3 years. The biggest motivation for these plans is the expected cost savings (www.automatiseringgids.nl).



4.6 Company Presentation of KPN

This chapter contains information gathered from various WebPages about KPN and also an interview made with Ad Labrujere, Programme-manager of New Voice at KPN.

4.6.1 History

The history of KPN starts in 1852 when the government realised a public telegraph network and started exploiting it. In 1915, the post and telegraph services becomes a state-owned company. After the Second World War and a period of virtual independency granted by the Germans, the discussion of independency of the company started. The PTT, as it was called at that time, became a state-owned company again, using PTT's revenues in order to offset fluctuations in the economy. The PTT received money for investments in order to meet the growing demand but the available funds remained highly dependent on the needs of the government. As a state-controlled company, the PTT was obliged to conform to the government's labour policy. A flexible adaptation to the labour market was therefore impossible.

Two developments in the eighties would finally give the PTT the full independence it had desired for so long. First, because of the 'telematics revolution', telecommunication companies had to make enormous investments to digitalise their exchanges and lines, and capital could only be borrowed in the market if the company had commercial rights. Second, more and more Western governments were deciding to privatise their state-owned companies, to improve efficiency and profitability. On 1 January 1989, the Netherlands Postal and Telecommunications Services became Royal KPN Nederland NV (KPN), and got listed on the Amsterdam Stock Exchange. The shares of KPN are now listed on the stock exchanges of Amsterdam, New York, London and Frankfurt.

The emerging of the Internet and e-mail gave telephony an important role in written communication. The bond between KPN's two most important operating companies, PTT Post and PTT Telecom, was becoming ever weaker. The companies were therefore parted in 1998 and each went their separate way. PTT Post merged with the Australian company TNT and became TNT Post Group, and PTT Telecom became Royal KPN NV.

At more or less the same time, KPN's monopoly over telecom services in the Netherlands came to an end. The government was going to liberalise the telecommunications market and established the Netherlands Regulatory Authority for the Telecommunications and Postal Sector (OPTA) to monitor the KPN. The new circumstances demanded a change of mentality within KPN. The management style changed and customer loyalty was assigned high priority. The staff were trained, more products from various sub-markets were developed, and company-owned sales channels were established e.g. Primafoon and Business Centre. The liberalisation of the European Telecom markets had far-reaching consequences for KPN and the strategy the company followed. A decline in the market share in the Netherlands was inevitable but, at the

same time, KPN gained access to other markets, which led to an internationalisation of KPN's activities.

4.6.2 Profile

KPN offers telecommunications services to both consumers and business customers. KPN's core activities are telephony and data services through their fixed network in the Netherlands, mobile telecommunications services in Germany, the Netherlands and Belgium and data services in Western Europe. KPN is the market leader in the major segments of the Dutch telecommunications market. The customer base and the well-known brand are the strengths of KPN according to Ad Labrujere, Programme-manager New Voice. KPN has a market share of 90 percent of connection to the fixed net and a market share of 30 percent on the voice traffic. The market share of KPN on the Dutch mobile market is 13 percent. Through E-Plus in Germany and BASE in Belgium, KPN holds the number three position in the mobile market in these countries. At the end of December 2003, KPN had 7.7 million fixed-line subscribers and 1.5 million Internet customers in the Netherlands and 14.7 million mobile customers in the Netherlands, Germany and Belgium. As of the same date, KPN had 32,736 employees.

4.6.3 Mission

We are committed to providing a portfolio of modern, high quality telecommunications services to our customers. We want to help our customers to achieve their goals and to enrich their lives, whether for business or pleasure.'

KPN believes this approach will lead to satisfied customers, providing the basis for profitable growth and to value creation for our shareholders.

KPN believes that service quality and customer satisfaction will only flourish if our employees are motivated to provide the best possible service to our customers.

4.6.4 Strategy

KPN's strategy is the following:

We aim to continuously improve our operational and financial performance. Among the numerous business aspects that we focus on, customer satisfaction stands out above all others, as this is a prerequisite for profitable growth. To that end, we have started a number of initiatives during 2003 with the aim of increasing our quality of service. We have confidence in the potential for growth in broadband services in both of our core divisions (Fixed and Mobile) and in the potential for further increasing the number of mobile subscribers. (http://www.kpn-corporate.com/eng/kpn/?id=1&taal=eng)

Like other incumbent telecommunications operators, KPN's fixed division is experiencing pressure on its traditional voice and data revenues due to competition from other operators

(including mobile) and migration to less expensive IP-based services. In the Fixed division, the objective is however, to retain market leadership in the Netherlands. KPN's strategy is focused on preserving as much as possible the traditional voice and data revenues, whilst at the same time increasing revenues from Internet and broadband services, with an emphasis on cash flow.

There are three sorts of players who play a big role in the fast development of VoIP. First, companies who provide VoIP through peer-to-peer software, such as Skype. Second, the Internet providers, such as Wanadoo. And third, the cable companies, for instance UPC.

"We see the possibilities that VoIP has to offer but sees it also as a threat, because of the cannibalisation it is going to create".

VoIP is the new technology and can't be ignored, this means they have to compete in this field and are then of course competing also against their own product, according to Ad Labrujere. Therefore the customer loyalty is being enhanced through improved quality of service and the introduction of discount packages.

Broadband experienced substantial growth in 2003, mainly due to ADSL in the consumer market. Although current growth in Internet and broadband is being generated almost exclusively in connectivity, KPN believes there is also potential for growth of new services and applications, both in the consumer and business markets. Ad Labrujere says that, KPN will focus also on offering , telephone, Internet and television. At the moment KPN offers TV not by cable but transmitted by air and picked up by a special antenna, KPN has however filled a request with the OPTA to get access to the networks of cable companies to respond to the customer's wish for a total package of electronic services. KPN will start in 2005 to offer VoIP through their Internet subsidiary "Het Net" and are also planning to introduce VoIP under the KPN brand name.

The boundaries between the mobile and fixed telecommunications markets are blurring. Customers are increasingly looking for access to communication and personal information everywhere and at any time, irrespective of the underlying technology. Businesses are increasingly managing the total cost of ownership across mobile and fixed voice, as well as across data services. KPN sees opportunities to increase customer retention through, for example, service bundling and joint marketing. Convergence between fixed and mobile is also evident with high-speed wireless data services (WiFi) at public hotspots such as hotels and restaurants.

4.6.5 Products

Telephony

KPN offers telephony only through their fixed net, no VoIP is being offered yet. It offers telephony in the following subscriptions. BelBasis is the standard package offered by KPN, it can be extended with a BelPlus subscription which includes a bundle of free calling minutes and discounts on long distance phone calls and international phone calls. The Belbudget is a cheaper variant with a lower monthly subscription but with higher calling tariffs.

Product	Price
BelBasis-subscription	€ 18,16
BelBasis-subscription with BelPlus	€ 19,66
BelBudget-subscription	€ 9,67

Internet

KPN offers Internet through four different providers. The differences in the prices is explainable by the more extended service offered. With the Direct ADSL for instance, the customer gets directly access to the Internet without any interference of an Internet Provider. The more expensive subscription offered by XS4ALL includes free anti-virus and firewall software and also provides five mailboxes.

Download /	Direct ADSL	Planet Internet	Het Net	XS4ALL
Upload				
(kbits/sec)				
256 / 128		€ 9,95	€ 7,95	
416 / 160	€ 21,95	€ 26,95	€ 14,95 / € 24,95	€ 29,95
416 / 352	€ 29,95	€ 34,95	€ 32,95	€ 39,95
2240 / 416	€ 49,95	€ 54,95		€ 59,95
4480 / 704	€ 74,95	€ 79,95		€ 79,95

Television

KPN offers digital television as an alternative for cable television. A standard package of 25 channels is being transmitted by air and picked up by a special antenna. This antenna is connected to a digital receiver which has to be connected to the television.

Digital Television	Telephony by KPN	ADSL by KPN	Price / month
Yes	Yes	Yes	€ 7,95
Yes	Yes	No	€ 10,95
Yes	No	No	€ 13,95

4.6.5 Organization

In order to be responsive to the fast changing Telecom market, KPN created a Programme called New Voice, which consists of various members of different departments who are solely occupied with the development within VoIP. The head of New Voice is Ad Labrujere, who reports directly to the Board of Management. The recognition of the VoIP technology and the possible threat or opportunity is stated by the establishment of this programme. KPN learned from the introduction of the mobile phone technology, that creating an independent unit within the organisation is the most effective way to stay on top of the development and to be responsive to changes. The VoIP

development was originally dealt with by the Fixed Net department, but in the beginning of 2003 the New Voice Programme was established and is since then growing in a matter of importance within KPN.



4.7 Company Presentation of UPC

This chapter contains information gathered from various WebPages about UPC also an interview was made with Marinus Neervoort, product manager of the telephony and interconnect at UPC.

4.7.1 History

UPC was created in 1995 when UIH (United International Holdings, now UnitedGlobalCom) and Philips started a 50 / 50 joint venture. The company is called UPC (United and Philips Communications) and consists of the cable assets of both companies. In 1997 UIH acquires 50 percent of the shares held by Philips and changes the name into United Pan Communications. While already in July 1997 UPC had their first cable telephony customer, they introduced their brand name Priority Telecom only in 1998.

In 1999 UPC was launched onto the stock market in Amsterdam and NASDAQ. Later that year a broadband Internet service was introduced under the brand name Chello in five European countries (Netherlands Norway, France, Belgium, and Austria). In October 2000, UPC opened its Digital Media Centre (DMC) in Amsterdam, The Netherlands and launched the digital Set Top Computer. The Digital Media Centre facilitates the distribution of new interactive television and Internet services, allowing consumers to access high-quality digital television and Near Video-on-Demand. UPC acquires several cable networks and by the end of 2000 its customer base grew till 7.1 million consolidated cable customers.

In 2001 UPC is expanding its business in a fast pace, while Chello celebrates the milestone of half a million customers and digital television is launched in five countries (Netherlands, Austria, Sweden, Norway and France). A new division is created called UPC Media, which is a combination the Chello broadband activities and its UPC TV operations. Because UPC is expanding its business by acquisitions, the financial situation at UPC is not a very healthy one. In September 2001 UPC appears to have more debts than equity, which resulted in a punishment of the Amsterdam Stock Exchange (Algemeen Dagblad, Economie, August 15, 2001). This is why UPC announced in November 2001 a review of its balance sheet and capital structure while initiating a strategic review of the company's long range plan. The recapitalisation is expected to result in a substantial debt reduction at the corporate level. In February, UPC N.V. ("UPC"), the financial holding company, signed an agreement in principle with key stakeholder UnitedGlobalCom ("UGC") to recapitalise UPC's Balance Sheet. This resulted in establishing UGC Europe Inc., this is the financial holding company in which UPC is now a subsidiary.

4.7.2 Profile

UGC Europe, Inc. (UGC Europe) is a wholly owned subsidiary of UnitedGlobalCom, Inc. (NASDAQ: UCOMA), a leading broadband communications and entertainment company. Through its UPC Broadband division, UGC Europe provides television, Internet access, and

telephony services to over eight million customers in eleven countries in Europe. UGC Europe also owns interests in and develops media and content services through its Chello Media division.

UGC Europe has grouped its activities into two main divisions:

- **UPC Broadband** offers residential customers the value and choice of services, combining television (basic analogue and digital), Internet and telephony. In addition, UPC Broadband offers digital satellite services in Central Europe.
- **chellomedia** the core businesses include broadband Internet access and portals, interactive digital TV products, transactional television offerings such as pay-per-view movies, digital broadcast and post-production services, and thematic TV channels. In addition, chellomedia manages the non-consolidated investment assets of UGC Europe, Inc. and Priority Telecom, which provides telecommunications solutions to the business customer.

UPC Broadband

Basic analogue cable is UPC Broadband's traditional service and with more than 6.6 million basic analogue cable subscribers at the end of 2003, more than 65% of the 11 million homes in UPC Broadband's footprint subscribed to this service. UPC Broadband aims to sell additional services to homes within the UPC Broadband footprint and many customers for UPC Broadband's New Services (digital, Internet and telephony) will be existing analogue television subscribers. Subscribers to UPC's Broadband's New Services grew by 20% during 2002. More than one million subscribers across Europe now subscribe to a New Service offered by UPC Broadband on a total of eight million customers for UPC Broadband's services. UPC Broadband ended 2003 with 462,000 telephony subscribers in six countries. UPC Broadband had 791,000 broadband Internet subscribers in ten countries, being the largest broadband Internet provider via cable in Europe. At the end of 2003, UPC Broadband had 139,000 digital television customers in five countries, the Netherlands, France, Austria, Norway and Sweden (www.ugceurope.com/About_Us/Profile/)

In The Netherlands the footprint of UPC consists of 2,6 million homes of which almost 2,3 million are subscribed to the cable services. Only 163,700 are subscribed to the telephone services, 379,600 to the Internet service and 56,800 to the digital TV service. In this UPC finds their opportunity and strength according to Marinus Neervoort, Product Manager Telephony and Interconnect. UPC's biggest advantages are that they have their roots in the cable business, not only because they have a network, which directly connects them to the customers but also because they have already been providing supreme quality television. Now they use their premium lines for Internet and for telephony. With this network they can determine and guarantee the quality of their services.

"Internet providers who offer VoIP and television are dependent on the network of others and cannot determine their quality of services themselves."

Television offered by Internet providers doesn't have a great quality yet, besides, Internet providers don't have a lot of experience in providing VoIP and UPC has, according to Marinus Neervoort.

4.7.3 Mission

Putting our customers at the heart of everything we all do. Customers are the core of our business and they make us profitable. Our relationship with them must be intelligent and committed. "Each employee is focused on making sure the customer is the centre of everything they do."

4.7.4 Strategy

UPC has focussed its strategy since 1995 on "" by offering Television, Internet and Telephony in five out of the nine markets in which they are active, and they say they have a first mover advantage over other competitors. Because of technological setbacks and competition this strategy never really got foothold (Algemeen Dagblad, August 14 2002), but now the time is more than ready to pursue this strategy, according to Marinus Neervoort. UPC concentrates on selling more services to the existing customer base, most of the households within UPC's footprint are buying its television service but a high potential exists for the telephone and Internet services. Besides this focus, it is also promoting its individual products for customers who want to shop different services from different providers.

UPC is constrained to the number of households in its footprint, this is the network area. With this is mind, UPC has three options to increase its customers base: 1 To build its own network, which is immensely expensive, 2 to go outside its footprint by connecting to a national fibre network, this is being tested now in Utrecht, or 3 To take over other cable companies, UPC has always been active in taking over other companies. UPC started as A2000, the Amsterdam cable company, by acquisitions UPC has grown to what it is today. There are only a few cable companies in The Netherlands; the biggest are Essent and Multikabel. Marinus Neervoort didn't say if there are any plans to take over any of these companies, but said that the authority who regulates competition, probably would not allow any acquisitions

.

In this market we can see that different kinds of companies are coming closer together. Where UPC started as a cable television provider, it moved to Internet and is now also offering telephony. Whereas, KPN started traditionally as a telephone company, it moved to Internet and is now offering television. Companies are taking over each other's line of business and by doing so increasing competition. UPC sees KPN with their nationwide network and 90% of the fixed net connections as their main competitor. Of course does UPC recognize other competition from Internet providers such as Wanadoo or VoIP specialists such as Vonage and even for instance Skype, but they belief in the superior quality of their products because of their own network, and therefore don't see them as a very big threat, according to Marinus Neervoort.

As television is one of the strengths of UPC and an important factor in the product offering "", we expect an increase of competition in this area.

KPN has filed a request at the OPTA, the Dutch regulatory authority of telecom, to get access to cable networks to be able to transmit television, but this has been refused by the OPTA because

KPN is not fulfilling the required conditions for access (www.opta.nl/asp/nieuwsenpublicaties/persberichten/document.asp?id=1513).

4.7.5 Products

Internet is provided by the brand name Chello, and is available in five different types depending on the up- and download speed. UPC has recently increased the up – and downloading speed of its Internet services and according to Diederik Karsten, managing director UPC Nederland, is it UPC's strategy to be market leader in terms of speed for the Internet services (Telegraaf, I-mail, January 7, 2005).

Product	Speed Kbits/s	Price
Starter	256/64	€ 14,95
Easy	512/128	€ 22,95
Light	2000/512	€ 32,95
Classic	4000/1000	€ 49,95
Plus	8000/1000	€ 79,95

In 1997 UPC started offering analogue telephony through the television cable. Since September 2004 UPC also offers digital telephony using the VoIP technology. Customers can keep their own phone number and their phone. VoIP is available in two different kinds of subscription, both have cheap calling tariffs and extended services available are available but the FreeTime subscription offers also free calling in the evenings, nights and weekends to all fixed net numbers.

Product	Price
Basis	€ 9,95
FreeTime	€ 14,95

The telephony services offered by cable are available in three kinds of subscriptions. All customers need the "Basisabonnement" (Basic subscription), next to this it is possible to extend the subscription with "MaxiBel Nederland" in which customers can call fifteen hours for a fixed price or with "MaxiBel Avond and Weekend" (night and weekend) in which they call unlimited within the fixed net at nights or in the weekend.

Product	Price
Basic subscription	€ 14,95
MaxiBel Nederland	€ 14,95
MaxiBel Night and Weekend	€ 11,95

Both the telephone services are competing on a price level; basic subscription and tariffs for calling per minute are offered cheaper than the services provided by KPN. This is, according to Marinus Neervoort, the only way to compete with KPN as telephone services are considered to be commodity products.

Television is offered by the analogue cable with a standard package of television and radio channels or in a digital version in which an extended choice in TV channels is offered. The Digital television service is an extended service and customers have to pay extra for this service.

Product	Price
Standard package Radio and TV	€ 15,53
Digital Start	€ 14,95 + the costs for the chosen additional
	channels (cheapest channel € 5,-)

By diversification of the products UPC tries to fulfil the needs of the customer and offers them the possibility to combine all the different kinds of services. To promote the sales of more services, discounts are offered when consumers decide to combine services into a package.

4.7.6 Organisation

In this fast changing market and high technology business, keeping up with the latest technologies is of utmost importance. UPC has a developed an organisation in which R&D plays a very important role in strategic decision making and in which they are constantly looking for technological innovations and product improvements.

The focus of the UGC Europe Technology Board, chaired by Sudhir Ispahani, CTO, is to provide the company with the technology leadership to strategically coordinate the increasing complexity of emerging technologies and to drive the ongoing optimisation of technology investment in resources and assets. The Technology Board has been a key driver of the decisions for the company's digital and broadband infrastructure. The UGC Europe Technology Board is tasked to continue supporting consolidation of core business processes like technology resource and asset coordination, strategic procurement and supply chain management, technology risk management, architecture and engineering standardisation, global broadband standards and development and implementation of the UGC Europe technology roadmap (www.ugceurope.com/Technology/).

The communications and broadcasting industry in which UGC Europe's operational divisions UPC Broadband (UPC) and chellomedia are active is regulated both by the European Union (EU) and the various countries in which they operate. Regulation is, therefore, an important consideration for UGC Europe's business. In order to fully understand the environment in which UGC Europe is investing, and to provide the best possible services to our customers, UGC maintains ongoing discussions with regulators and decision makers in all the territories in which UGC operates. This is of high importance for the strategic decision making, whereby UGC can make the best use of all regulatory opportunities and can minimise regulatory risks. For this purpose UGC Europe has an office close to the European institutions in Brussels.

UGC monitors issues, plans and regulatory developments that may affect their business at EU level. UGC actively supports the liberalisation and harmonisation of the EU communication markets and UGC firmly believes in the positive effects of enlargement of the EU policy environment to the Central European accession countries. In addition UGC Europe has, in every country in which it is operating, local people responsible for regulatory affairs. (www.ugceurope.com/Regulation/)



4.8 Company Presentation of Wanadoo

This chapter contains information gathered from various WebPages and articles about Wanadoo.

4.8.1 History

In 1994 a group of pioneers started the first commercial Internet provider in The Netherlands, they called themselves Euronet. They were the first ones in The Netherlands who made the Internet accessible to the public. Euronet developed in short time till one of the most successful providers in The Netherlands. In 1999, France Telecom took over Euronet and introduced the brand name Wanadoo. In 2002, Euronet Internet BV was officially changed into Wanadoo Nederland and is a fully owned subsidiary of Wanadoo SA (France).

Wanadoo has been concentrating on expanding its business fast as they recognized the potential of the Internet market and possibilities. Wanadoo has increased its market shares on the different markets by acquisitions and is now active in France, the UK, Spain, The Netherlands, Morocco and Belgium (www.persberichten.wanadoo.nl).

October 2004, Wanadoo introduced the Livebox; one device for wireless Internet, television, telephony and games. This is the first time such a device is available on the Dutch market, it has been previously introduced on the French and UK market. Until January 2005 only Internet was available through the Livebox, but now also telephony is being offered, by using the VoIP technology. (persberichten.wanadoo.nl)

4.8.2 Profile

At the moment Wanadoo is the second biggest provider in the Netherlands with more than 600.000 customers, of which more than 50 percent has a broadband connection. Wanadoo is, with a market share of 15,1 percent, the market leader in Internet connection in The Netherlands when you look at the providers individually. (www.zibb.nl).

Wanadoo doesn't have an own network over which they can provide their services, they are using other networks for offering their products. Depending of the area the customers are living in they have access to a certain network such as the network of Casema, a cable company in The Netherlands or KPN, and therefore access to an other product variety. http://www.breedbandshop.nl)

4.8.3 Mission

Wanadoo contributes to its users' everyday lives by helping them to communicate better, to use services that apply to their everyday lives and to access a vast world of knowledge. Wanadoo's goal is to enable each user to access its services easily, in complete confidence, everywhere and at all times. Wanadoo also aims to achieve a better return on its business activities in order to rise to the ranks of Europe's most profitable Internet services and directory companies. (http://www.francetelecom.com)

4.8.4 Strategy

The Wanadoo access strategy is based on the following two priorities: Increasing the number of customers in Europe and boosting the average income per user.

To increase the number of users Wanadoo will continue to promote the growth of Internet access through its presence in all market segments, offering innovative and reliable products. To that end, it will make the best use of the different kinds of networks, communications channels and handsets and will be supported by an efficient distribution network.

To boost the average income per user Wanadoo will continue its strategy aimed at expanding the number of paid access users wherever it operates in Europe. This strategy will focus on moving Freeserve's users without subscriptions towards unlimited Internet access products (low speed and ADSL). In addition Wanadoo will focus on expanding the number of high speed products in its primary markets. It will use innovative marketing solutions and techniques such as launching WiFi, ADSL modem + routers for professional customers and attractive price packages. http://www.francetelecom.com

Telephony is the second service we provide through the Livebox, after Internet. The telephony service offers cost-savings compared to the present phone services provided by for example the KPN. Telephony is the next phase in our strategy to provide our customers Internet, telephony and television services. according to Jean-Jacques de Pins, CEO Wanadoo Nederland (www.persberichten.wanadoo.nl)

Wanadoo is now using the network of KPN for its broadband connections, but thinks that the fee that has to be paid for the connection is too high. Wanadoo is planning to establish its own broadband network in The Netherlands aiming for a 55 percent reach of the households in The Netherlands, beginning West Netherlands and other densely populated areas. (www.zibb.nl)

4.8.5 Products

Wanadoo offers Internet in two ways; through ADSL and through the cable. Depending on the living area of the customer the availability of the products is determined. Internet through ADSL is provided in five variations depending on the demands of the required speed. If Internet can be provided through cable three variations are offered. Interesting are the differences between speed and respectively the prices between the two product offerings.

Product	Speed	Price
ADSL Direct	512/256 Kbit/s	€ 20,95 p/m
ADSL Go	416/160 Kbit/s	€ 21,50 p/m
ADSL Lite	1120/352 Kbit/s	€ 27,50 p/m
ADSL Basic	2240/416 Kbit/s	€ 52,25 p/m
ADSL Plus	4480/704 Kbit/s	€ 88,15 p/m

Product	Speed	Price
Cable easy	850/260 Kbit/s	€ 19,95
Cable Broadband Basic	2000/520 Kbit/s	€ 32,95
Cable Broadband Premium	4000/770 Kbit/s	€ 49,50
Cable Broadband Power	10000/1050 Kbit/s	€ 69,95

Wanadoo offers telephony only in combination with ADSL Direct and the LiveBox for $\[\le 22,50 \]$ a month. Customers can call for free to all fixed net numbers in Holland and against a cheaper rate call internationally and to mobile numbers. The LiveBox is normally offered for $\[\le 4,95 \]$ a month but because of the introduction a discount is been given and customers pay only $\[\le 1,-1 \]$ a month.

Television is not offered yet, but by the creation of the LiveBox the possibility of providing television was embraced. Wanadoo plans to provide television through the LiveBox in the future.

4.8.6 Organization

Wanadoo is a fully owned subsidiary of France Telecom and therefore enjoy the experience and know-how of one of the biggest telecommunication companies in Europe. In this fast changing market, a key to success is being on top of new technologies and innovations. France Telecom has a strong capacity for innovation and believes it can implement this strategy for the rapid development of the services it offers because it has an R&D team of approximately 3,000 engineers with world class expertise in the essential fields of communications technologies. This breadth of expertise and the in-depth understanding of customer expectations that France Telecom draws from the scope of its business portfolio gives the France Telecom group a unique

ability to identify new uses, and to develop in advance the new global services expected by customers. France Telecom and its research team also have extensive long term experience in collaborative projects with a variety of partners. This combination of expertise is available to all the companies of the France Telecom group and gives them a competitive advantage. (http://www.francetelecom.com)

5. Analysis

In this chapter the theory and the empirical material will be analyzed. Comparisons between the companies will be made and the material will used as ground for conclusions about the Telecom market today and tomorrow in the final chapter.

5.1 Market strategies

According to D´Aveni (1994) competitive advantage cannot be kept forever and keeping the advantages is to decrease your real competitive strengths. In the new market competition companies have to destroy both their own and their competitors´ advantages. All interviewed companies are constantly working with new strategies and developing the technology to find new ways to get a competitive advantage. They started out in different markets, not competing at all with each other. The market and the technology evolved and after many different strategic actions they are all competing on the same market for the same customers.

The companies who have their own network are having a competitive advantage over the other competitors. Not being dependent on other networks gives the companies the opportunity to guarantee the quality of the provided services. All companies do understand the essence of having a network. Wanadoo for instance has decided to build their own broadband network because the rental fee they have to pay to KPN is considered to be too high. Besides, the offered services can depend on the living area of the customer and therefore the product variety differs for the customers.

KPN does have their own fixed network, which enables them to provide ADSL Internet, but they cannot provide television over their network. KPN has overcome this problem by inventing a unique system, which provides television by antenna. However, KPN is trying to get access to UPC's network to be able offer television by cable. KPN is trying to destroy the competitive advantage UPC has over KPN and to improve its own advantages. If it gets access to UPC's network, which is currently under investigation of the OPTA (governmental body of the Ministry of Economic Affairs who regulates the Telecom industry) it can improve the quality of its television offering and develop a more user friendly device to improve customer convenience.

All the Swedish companies in our research have their own networks, although they differ in quality and possible use. Telia is planning to offer "" through their fixed net and has received a lot of critics because the network does not have the capacity to combine the three products. However, no plans have been made so far to get access to other networks such as the network of ComHem or the highly advanced fibre network of Bredbandsbolaget.

Bredbandsbolaget uses the network of Telia to provide their services outside their own footprint. Bredbandsbolaget has the most advanced network in comparison to Telia and ComHem, present in highest populated living areas in Sweden and is able to use this advantage in providing better quality of the offered products. However, Bredbandsbolaget has concentrated on only providing the premium quality products and is therefore ignoring a large potential market of less demanding customers.

A strategy for hypercompetition has a dynamic view and it is founded on three ground principles. The first one is that all actions create reciprocal actions. This can be seen on the market as the IP-companies entered with their fixed telephone call costs Telia took action and offered the same service to a similar cost. Then the smaller companies started to provide and that has resulted in that the larger companies has taken action and added TV as well. The second principle is that all actions are relative. The value, the risk and the result of every action must be seen in relation to the competitors' actions. The third principle is that companies have to calculate the long-term effects of every action to see how they might evolve and to understand in what direction the action might take. (D'Aveni, 1994) When taking these strategic actions the companies had to make a valuation of every action and make choices according to how it would affect the company if they would or would not take that action. Telia, for example, does that every time any competitor comes out with something new on the market. Then they closely monitor the development and make a valuation of its possibility of becoming a new standard or not.

Companies can according to D'Aveni compete with four different factors or arenas; price and quality (1), know-how and timing (2), building and destruction of business territories (3), and collection and neutralization of capital strengths (4). When the advantages of the first factor have eroded or are not possible companies move to the second and so on. The development and aggression of these factors have increased and intensified the competition (D'Aveni, 1994).

We can identify that all the companies in our research are still improving the qualities of their services. Speed for Internet connections is being increased for instance while prices stay the same for the subscriptions. The main argument of the incumbents Telia and KPN has been that the quality of the VoIP service is inferior to the quality of the fixed net telephony. The providers of VoIP are however constantly improving the quality whilst competing with sharper prices.

The companies in our research put a lot of effort to keep up with the latest technologies to provide the customer the best possible service. An example of the innovative and service minded mindset can be seen at Wanadoo by providing the first user-friendly and convenience customer solution with the LiveBox. Wanadoo is the first company who provides the complete "" offer in just one box in The Netherlands, even though Wanadoo doesn't provide the full service yet.

As we have described before, owning a network is of the utmost importance. We can see that the different companies are trying to build their business territories by extending their networks by international acquisition or are trying to destruct business territories by getting access to the networks of other players.

5.2 Strategic Advantages

Timing is very crucial when taking a strategic action because it can determine the following impact and outcome on the market (Schilling, 1999). A company can by only getting ahead by chance, stay ahead and gain a high proportion of their market and early on, is able to outdo its rivals (Arthur, 1994). A brand that gains a large market share also make people buy more of the

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same product because they are able to exchange information with other people using it already. The more consumers that adopt the product, the further the company can improve their technologies as the company gains experience and guiding for further development.

Since the Telecom market tends to change into a "" market, we can conclude that there are different kinds of first-mover advantages. First, Telia and KPN had a first mover advantage in the traditional Telecom market. Second, UPC and Com Hem have a first-mover advantage concerning the television service. Third, UPC and Bredbandsbolaget have a first-mover advantage in providing VoIP and last, Bredbandsbolaget and Wanadoo had a first-mover advantage in providing Internet

5.2.1 First mover advantages

When it comes to strategic advantages in the Telecom market of today, it seems very important to be a first mover. Since it takes network to provide the services, the companies owning them are in a very good strategic position. It is hard to be a follower without an own network.

Telia and KPN still have the largest share of the Telecom markets and that is a result of many things but mostly because of their prior monopoly of the telephone net. This has given them a lot of advantages like scale, brand loyalty, an installed base and learning effects, which are some of the positive effects of being the first mover (D´Aveni, 1994). KPN and Telia are both providing telecommunication and data services and are offering these services to both private and business customers. Not only do they cover all areas they also have the largest markets shares within all these areas and covering many customer segments. This is Telia's and KPN's biggest advantages today.

Com Hems and UPC's biggest advantages are that they have their roots in the cable business, they have a great possibility to expand their telephone business because of their prior television strategies they developed a large network that has given them a large installed base to work with. This gives them a direct network to the homes and a possibility to provide and guarantee high quality products over the same network and enables to concentrate on selling more products to their customers.

When looking at the Swedish market Bredbandsbolaget has a first-mover-advantage in providing VoIP. By providing VoIP as early as more than one year ahead of the competition certainly gave the company a more established brand. However as the market is changing into a Triple Play market, ComHem seems to be in a better strategic position. ComHem have a larger installed base than Bredbandsbolaget and their network reaches out to more people. First mover advantage is important in this market because as Arthur (1994) writes, there is money to save for the customers if their friends all use the same company for calling. If an applicant of Bredbandsbolaget or ComHem for example calls to an applicant of the same company, there is no connection fee.

Being first-movers in these two segments have helped the companies establish a customer base. Bredbandsbolaget has established about 50 000 customers in VoIP before any other competitor

has even got started. The first-movers have also been able to develop their services so that they can run without problems. This will be hard for the followers to catch up to.

In the Dutch Market UPC can be considered to be the first movers in providing VoIP. UPC has also been offering since 1995 and claims to have a first-mover advantage over the other providers. The experience UPC gained in those years gives them the advantage over their competitors. This gives UPC the ability to provide better quality services.

5.2.2 Second mover advantages

Bredbandsbolaget is a follower into the telephony market. They entered a highly developed market where Telia had almost all the customers. As D'Aveni (1994) pointed out however Bredbandsbolaget had some advantages being a follower. Bredbandsbolaget constantly put their price beyond that of Telia. They also made compatible products; people didn't have to change their phone numbers. In short they offered the same product but different. Telia has tried to fight back by offering *Telia alltid* and *Telia fritid*. Telia has also tried to put of the VoIP and providers by offering cheaper calling to their broadband customers.

In the Dutch market Wanadoo have tried to follow UPC by offering the same product but in another way. They have offered the Livebox that aims to make an easy solution for the customers. KPN is not yet following the trend of VoIP but will in 2005. They have the advantage of knowing all the problems UPC has had with the service.

5.3 Counterstrategies

D'Aveni (2002) has written about five different ways to respond to a revolution. A company can *contain* it, *shape* it, *absorb* it, *neutralize* it or *annul* it. All respondents see VoIP both as a threat and a possibility, although there are quite some differences in the approach to counter this technology.

Bredbandsbolaget and UPC are as we said earlier the first-movers in VoIP. This has created counteractions from both cable companies and Traditional operators. ComHem strategy is to establish their network and gain customers by offering a "package-deal" containing all their products, including VoIP. Com Hem saw that the IP-telephony was working fine abroad and that the consumers were interested. ComHem has therefore *absorbed* the technology and plan to take full advantage of it in the future.

Telia thinks that the technology doesn't have the quality yet to be a big threat to the fixed net. In the Interview with Karin Ström she clearly stated that Bredbandsbolaget have very few users and ComHem is no threat at all. She also said VoIP didn't come as a shock to Telia. As written in the Empirical part there has been a lot of criticism towards Telia for not doing anything to counter VoIP. However Karin Ström pointed out that Telia first wants to see where a technology is going before they act against it. They have acted though by providing similar services to a similar price

over the fixed net. It seems Telia is trying to *contain* the revolution by as D'Aveni (2002) wrote; distributing discounted merchandise to draw attention away from the new technology. To counter Triple Play Telia will start providing television in 2005. Time will tell if Telia can manage to provide it through ADSL, against all doubts from the market.

KPN has a different view on VoIP. The Company will provide it in 2005 and believe the technology can not be ignored. KPN has established a special team of employees whose only objective is to monitor the VoIP development. It is hard to say how KPN's strategy towards this revolution will be. They seem to be *absorbing* the technology, but in a way they are also trying to *neutralize* it by getting access to the network of UPC. Time will tell what KPN decides to do.

According to D´Aveni (1994) companies can compete or counter strike with four different factors or arenas; price and quality, know-how and timing, building and destruction of business territories, and collection and neutralization of capital strengths. When the advantages of the first factor have eroded or are not possible companies move to the second and etc. Telia and KPN have resources to compete with all four arenas. They have the quality and price, the know-how, a large territory and capital strength, which imply that they are very strong competitors on the market.

Terrill & Middlebrooks (1999) wrote that market leaders must recognize that they can't do "all things to all customers" and Brown & McDonald (1994) point out that market leaders must learn to say "no" to certain segments. When looking at what the traditional companies are doing, we can see that Telia are certainly providing to all the segments of the market. Perhaps this is a strategy from Telias side, not to go against their fixed telephony and simply say "no" to this new technology. The question is off course if they can afford to say no to VoIP? KPN offer similar services as Telia but have a more open view on VoIP. The next move will be very important for both these companies.

5.4 Strategies for surviving

Advantages such as size, reputation and integration have begun to wither and that other advantages like creativity, speed and flexibility have become more important (Hagel & Singer (1999). However in the article "the quest for resilience" Hamel & Välikangas (2003) point out that a well known brand, deep industry know-how, access to distribution channels and physical assets, are still of enormous value to a company despite the new economy challenges.

We have established in the Strategic Advantages part that Telia and KPN have their advantages such as size, reputation and a well known brand due to the monopolistic position they had on the Telecom market. But how well is their industry know-how? Both companies are entering a new market in which "" seems to be the way to quest for the customer. Of course do both incumbents have experience in traditional telephony and in providing Internet but they lack the experience and know-how in providing VoIP and television. KPN is providing television through the air which is picked up by a special antenna but that brings us to the next point. Do Telia and KPN have access to distribution channels and physical assets? Telia and KPN have their fixed net with which they are able to provide the telephony and Internet service but neither is able to provide

television through it. Telia is planning to but gets a lot of critics for it and has not started yet. KPN tries to get access to the network of UPC to be able to provide television through the cable, meaning they do not actually have access the distribution channels and physical assets needed to provide "".

Hagel & Singer (1999) claim that creativity, speed and flexibility are more important but how flexible and creative are KPN and Telia? KPN has learned from the introduction of the mobile phone technology and has created a Program called New Voice, which consists of various members of different departments who are solely occupied with the development within VoIP. The head of New Voice reports directly to the Board of Management. The recognition of the VoIP technology and the possible threat or opportunity is stated by the establishment of this program. Creating an independent unit within the organization is according to KPN the most effective way to stay on top of the development and to be responsive to changes. Telia on the other hand have gone through internal changes in the last two years. Prior to have been a more product oriented company organized, divided into function and technique, towards becoming a customer orientated company that today works vertically with the different customer segments. Since two year Telia has also reorganized the company by country and Sweden has gotten new CEO. Telia have also implemented a new control system that is used by everyone in the company. Telia plan seven quarters ahead and then follow up. Telia does however not respond very actively towards the new developments by taking any concrete actions.

Traditional companies normally strive to keep their core processes bundled together. That way they have to compromise the performance of each process because scope, speed and scale cannot be optimized simultaneously (Hagel & Singer, 1999). Due to the development of the VoIP and the change in the Telecom market which is now focusing on "" concentration on one single product is not the strategy the companies are following. However, the challengers provide only the products of "", independently or in a package and mainly focus on consumer market. KPN and Telia have a much wider product variety and serve more markets. The focus on and responding to changes in the markets is therefore easier spotted by the challengers and they can react faster to it.

Bredbandsbolaget has a very small organization with only 260 employees and can therefore be considered to be more flexible. However, they don't have the advantage of a big organization either. Wanadoo for instance is a subsidiary of France Telecom which has a R&D department of 5000 people who provides the organization with the latest technologies. In the case of Wanadoo it has resulted that they were the first to provide the all in one "" solution with the LiveBox.

Capital strength is an important quality to have and the only possibility when companies have emptied their competitive opportunities with price and quality, timing and know-how and the barriers have been overcome (D'Aveni, 1994). KPN and Telia have the advantage that they are the incumbents in the Telecom market. Both companies have great resources and access to capital. However, Wanadoo is a division of France Telecom and has in principle a very financially strong mother company behind them. Bredbandsbolaget has been financed by Cisco Systems and has now an estimated value of 4-6 billion kronors. UPC had a hard time financially speaking in 2001-2002 and was in weakest financial position compared to the other companies. Now that UPC has been taken over by UGC Global it can count on a financially strong mother

company too. ComHem seems to be the financially weakest company in our research, they are owned by EQT Northern Europe, a venture capital company.

5.4.1 Surviving a shake-out

An enormous concentration on the Telecom market is taking place. In our research we have only studied the biggest players in the three categories we divided the Telecom market in. Besides these companies there is a big offer for VoIP and products offered by other companies. The companies in our research have constantly been improving their services against cheaper prices and so have the other companies. It will therefore only be a matter of time before a shake-out will take place as the concentration on the market gets to high and the margins to low.

Petter Östlund from ComHem believes that the stable telecommunication market will not boom since it is mature already. He means that everybody already have a phone and it is only the consumers who wants to change to IP-telephony that companies can compete for, but they are not that many. That can also be seen by the rate the companies are growing in.

According to Marinus Neervoort from UPC, it is also difficult and expensive to compete on this market because a telephone service is considered to be a commodity good. Everybody already has a telephone, television and Internet, and making people change from KPN to UPC costs a lot of money. You have to present the consumer a better offer with cheaper prices, while you still have to pay the interconnect fee's the KPN network if consumers call outside UPC's footprint. The only way to compete is with sharp prices, quality, service and user-friendliness

According to Day (1997) stable companies, like Telia and KPN, that are more or less protected, get hit by seismic shifts when the market shakes due to for example deregulation or technological discontinuities. They both have struck Telia and KPN first by losing their monopoly position on the Telecom market and now by the new VoIP technology. To survive a seismic shift companies should absorb smaller rivals, cut operating costs and invest in effective technologies. The interviewed companies are all concentrating on the new VoIP technology and the change into the "" market.

If we have a look at the challengers and how well equipped they are for a future shakeout, we can see that they have some key assets that makes them strong, such as an own network, well known brand and a large customer base. However, Bredbandsbolaget and ComHem are relatively small companies compared to the other players in our research and are therefore more attractive to acquire. Especially because both the companies are financed by venture capital firms.

5.5 Strategies for Growth

Stevrin (1991) writes that companies can grow in five different ways. UPC for example, has been following an acquisition strategy to grow, even so far that it became in a financially unhealthy situation. Nowadays it is fairly impossible to grow or expand your business by acquisition in The

Netherlands because the government who is looking after fair competition would not allow a too big concentration on the market. Therefore UPC is expanding its business like Telia and the other companies its business in other countries.

We can see however that, all the companies in our paper are following the strategy is "to grow again", which means consciously take the company in another direction and trying new ways of growth and strategies. All the companies are expanding their business outside their original market by offering "". They are looking for new possibilities to fulfill customer needs and are not afraid to go outside their boundaries and explore new markets, which are made possible by new technologies.

Creating business territories has been an important strategy to prevent competition (DÁveni, 1994). A geographic territory is created to be able to take advantage of "company home ground". The advantages of this can be seen with companies who have their own network. Only Wanadoo doesn't have an own network but clearly understands the importance of this and is planning to establish a network soon. The factors, that tribute to a territory advantage are local customer knowledge, customer loyalty of a local brand, lower costs due to work over short distances, governmental barriers for foreign companies, control over the local distribution channels, local habits, unique advantages like lower work costs, and dominant position on the local market. These advantages are very strong, but not unconquerable to strong resource based companies.

5.7 Summary of the analysis

The empiric part has shown that the leading companies on both markets are almost identical. Even Com Hem & UPC and Bredbandsbolaget & Wanadoo are very similar, therefore we will sum up the six companies as; industry leaders, cable companies and broadband companies. The figure is showing a summery of the companies' strategic focuses and situations so that a comparison between the three businesses can be made.

Companies / Theory	Industry leaders Telia & KPN	Cable companies Com Hem & UPC	Broadband companies Bredbandsbolaget &
			Wanadoo
Provide	Fixed telephony, broadband and Internet services and adding TV soon	Cable TV, broadband and Internet telephony	Broadband and Internet telephony and soon TV
Customers	Business (B)and private homes (PH)internationally	Com Hem to private homes in Sweden. UPC to B and PH internationally.	Business and private homes internationally
First or Second mover	Prior monopoly of telephony Second mover of VoIP and TV	Strong position as cable TV providers. First mover of	First mover and leading of broadband and Internet telephony providers (except VoIP for Wanadoo)
Advantages	Large installed base Own network Net providers Well known brand Long experience	Able to lower margins. Own network. Stable base.	Well established high speed Internet network Flexibility Own network (except Wanadoo)
Strategies			
Internal changes	Yes	Yes	Yes
Shake and shift	Fixed net user decreased due to the new technology	Getting more competitors within	Competitors competing with
Surviving qualities	Customer knowledge Capital, own network, experience	Customer knowledge, own network, experience	Customer knowledge, flexible
Method for change	Timepacing Keep on exploring new ideas	Exploring the IP Keep on developing	Challenge the existing structures and dare to try something new
Growth	Grow again	Expanding services within their installed base	Expanding their existing net to reach new customers

6 Final discussion

To remind you of what we wanted to find out with this paper the purpose will be stated here again:

"Our Purpose with this essay is to research what effect VoIP has on the Telecom market and what strategies the different players have for competing and surviving them".

The industry leaders' strategies against VoIP

Four companies with different backgrounds, starting points and technologies have ended up on the same market with almost the same product offerings. The companies' strategies are very similar; they all have a focus on the customers and simple solutions for their benefit. Is the future telecommunication product or is it just a passport to something bigger? All companies seem to agree that VoIP is the future but they have different ways of approaching it. For instance there is a big difference in attitude between the incumbents KPN and Telia. Telia does not see the new technology as a problem and did not say that they were very concentrated on VoIP. KPN on the other hand had established a special "taskforce" that worked only with VoIP. Is Telia not seeing the problems up ahead or do they know something KPN doesn't? It seems a bit naive for Telia to say that for instance ComHem is no threat in Telephony because they have almost no users so far, but what happens when they are fully established? They already distribute Cable-TV to many households and when those people see that there is money to be saved by going over to the telephony provided by ComHem, many customers could leave Telia. As Petter Östlund said ComHem has the advantage of being able to cut costs in Telephony since it's not their main source of revenue. But can Telia really cut their cost in television enough?

Another troubling issue for Telia is that they say everything is all right but when looking at their annual report it in fact is not. They showed the best half-year report ever in the first quarter of 2004, but the gained revenue came from developing and growing in the Baltic and in Russia. The profit of these markets shadowed the fact that due to cutting costs and increasing competition, Telia actually had a setback in Sweden. Maybe Telia can survive by expanding to other countries that are in a more expanding faze, but can they really afford to see themselves overrun in Sweden. If they are this late with counterstrategies in Sweden they might not see the next technological boom and overrun in other markets as well. When it comes to their counterstrategies they seem to more follow the market than take any real action. KPN on the other hand has set the issue of VoIP to highest priority and therefore in our opinion, have a better chance of acting to stay ahead.

Competing skills

What we have found important when competing is first of all to have good customer knowledge and shift your company towards a service minded organization. This is something the companies in the Telecom market seem to have understood. The second thing is to have your network build out. The networks seem to be essential to gain market share. When it comes to counterstrategies we found that those charted by Richard D´Aveni (1994) is something the companies do not like to talk about. However as we wrote in the analysis there have been hints of a couple of them being used and its become clear to us that companies need to be aware of them in order to stay on top. We will therefore write them down again; *Containment, shaping, absorbing, neutralization*

and annulment. Companies should keep these in mind and decide beforehand what actions that fit their goals and capabilities if something happens. Is it in the company's culture to try and neutralize a new threat or is the company more into absorbing new things. This is a question the companies have to ask themselves.

We have also found that in the telecom business where the "installed base", like in this case number of wires, first-mover advantage is extremely important. This also has to do with the fact that the market in it self is so mature. It is like Petter Östlund of ComHem said; "You can get people to call with the new system, but you can't find new callers". He hints that there is only the opportunity to take customers from your competitors, not create new customers. This fact makes first-mover and market knowledge very important.

When it comes to the smaller companies of our study they have established quite good positions on the market due to the fact that they are installed into so many homes and they all have their own networks (except Wanadoo). But what could destroy their positions on the market today then? Well, due to their own nets and opportunity to set good prices, it looks like there is not so much that could take them out. Maybe if the quality of the IP-telephony would not get to the expected customer level, the VoIP companies would find it hard to get customers to settle for low quality. On the other hand if it does exceed the expectations, maybe the large industry leaders will find it hard to get enough revenues from their fixed net to survive.

Surviving skills

When it comes to general survival strategies we found that being able to change strategically is a must, which probably is the fact in every business. However to be able to do this the company might need to change their dominant logic. We found that all the studied companies have gone through internal changes to make this possible. Perhaps this is something inevitable and maybe change cannot be met with anything other then change itself. To be able to cope and keep up with the new technology, new competent leaders have to be added and the staff educated. These companies have shown that you cannot be afraid of trying something new, stepping into another market and broaden your horizon if you want to stray alive and competitive. The most common changes the companies gone through are mergers, acquisitions and alliances, which really prove that the competitors on the market is getting fewer and stronger.

To view ahead to the future we can see that a shakeout will definitely be inevitable but it is too early to draw any conclusions. We have tried to identify which strategies are being followed and what the possible key assets are to survive this market. VoIP has changed the market and the competition in many ways and the change is coming for all competitors in the telecom business, but it will take many years before we solely can see IP-companies and technologies.

What is interesting is that what all the companies found most important to survive changes was to know what the customers want and being able to provide them with that. We think that this emphasises how the customers have grasped power on the market in the 21st century and also that the technology has not any selling power yet. It is like David Roddy, manager consultant for FTI consulting, says: "As the Internet did in the crash, VoIP will end up weeding out lots of weak companies. Inevitably some companies will lose and some will win. I'd say the big companies are going to acquire the small companies with good ideas and the other companies will go bankrupt.

And whatever happens, customer win." (Fortune, Jul 26, 2004 vol.150) This revolution has certainly shaken the market and the technology will take companies to a new future of competition.

6.1 Suggestions for further research

We have concentrated on the local markets; one interesting research would be a global study of the technological development of VoIP. What possibilities does WiFi create in order to make phonecalls? Also something we didn't look at is the mobile market. There is lots of action going on when it comes to creating new platforms for mobile phones. IP-technology is one of the solutions there as well and is very much in competition with the 3G technology. Another interesting research would be to have a look at what kinds of networks there are in a country and how they are used. As we found out in this essay networks are very important in order to create customer satisfaction and thereby a large customer base. To sum up, there is a lot happening in the telecom business and it has been very interesting studying it. We recommend it to any other author with a little insight in technology.

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Appendix 1

Interview guide

Common questions:

How long how you worked within the company? Which are your assignments in the company?

The company:

Which are the strengths and weaknesses of the company on the market today?

How would the company like to profile itself?

Why were telephony interesting to the company?

In which way are/will the company be unique, why will the customers choose you?

What is your vision and goal within telephony and for the company?

What are your strategies to get there?

What company is your biggest competitor?

How important do you think it is to develop new strategies or products within the company?

Do you work with improvements all the time or part time?

When and what made you realize the importance or the threat of the new technology?

Are you going to compete with the VoIP- technology? How?

Do you want to grow and how will/are you doing that?

Future:

How do you think the market will look like and what are going to be important?

mobile - fixed telephony customer solutions - unique products

quality - low cost private market - businesses growth - cut downs

a few players = bust - many players=boom little competition - high competition

flexibility - stability local - global the service - the product

Do you believe that the market will change in the future due to the new technology and the next generation? How?

How long time ahead do you plan for? How?

The change:

Have there been any organizational changes since the telephony, a new strategy was implemented?

Has it been an easy change?

Are there regulations or rules etc. that are keeping the company back? What and how?

What qualities do you find most important to survive and be successful on the market? (rumor, brand, size, integration, creactivity, speed, flexibility, know-how, access to distribution channels etc.)