



SCHOOL OF ECONOMICS AND MANAGEMENT
Lund University

Access to the market
—
a question of collaboration?
A case study of a small innovative firm

Authors:

Nadine Kissmann, Estelle Lönnberg, Ewa Sitkiewicz

Supervisor:

Christer Kedström

Bachelor's Thesis

2006-06-01

Although the future of all electronics
Companies depends on continued
technological advancement, it depends
even more on how well management
navigates the companies strategic
business challenges.

Editor's note by Adrian Mello
Electronic Business
2005 31:3

Abstract

Title: Access to the market – a question of collaboration?
A case study of a small innovative firm

Seminar date: 07/06/2006

Course: FEK 582, Bachelor Thesis in Business Administration, 10
Swedish credits (15 ECTS)

Authors: Nadine Kissmann, Estelle Lönnberg, Ewa Sitkiewicz

Supervisor: Christer Kedström

Key Words: Convener, Strategic Alliances, Innovation, Resource Based View, Network theory, Network externalities, Standards

Purpose: The purpose of this thesis is to understand and evaluate the possibilities for a small innovative company like Convener to gain access to the market through partnerships and strategic alliances.

Methodology: A case study design is applied, based on semi-structured interviews. The empirical data is analysed on the basis of an analytical framework.

Theoretical perspectives: Based on the resource based view and complementary resources aligned with network theory. This is further complemented with aspects concerning network externalities and technological standard setting principles.

Results: When contemplating entering an alliance the rationale behind the decision should differ depending on the size of the companies involved as well as on other important factors. The important factors influencing the decision are related to the resource pooling potential of the alliance, the power structure along with the business network the companies are a part of. The analysis has shown proof of a need for cooperation if one wish to succeed in the telecommunication industry and it has also determined which resources that are deemed to be most important to get in touch with, for our study object, to facilitate its access to the market. Those resources are defined as a direct channel to the customer, funds/capital and the access to relevant business networks. To get in touch with these lacking resources, three alternative approaches has been proposed; all of them involving a strategic alliance decision. Furthermore a strategy on how to survive, once the company has reached the market, is also analysed.

Preface

Throughout the composition of this thesis we have had the great opportunity to meet and co-operate with several highly skilled individuals. It took about 10 weeks to put this report together, which has provided us with a profound basis to act on regarding our further business management studies. Because of this, we would like to show our gratitude those very individuals who enabled us to write this paper.

First of all, we would like to thank our tutor Christer Kedström for his great advises throughout the working process of this thesis.

Furthermore, without the co-operation and support of Marc Klefter and Richard Lindberg, the managers at Convener, this thesis would not have been possible.

We also would like to express our appreciation to Agneta Planander, Fredrik Häglund, Christer Månsson and the representatives of Company Alpha and Company Beta. Thank you for your kindness and your time taken to perform the interviews.

Finally, we are grateful for the exceptional support of Daniel Andersson, Anders Bolse, Ola Roxendal and especially Johan W.

31st of May 2006.

Nadine Kissmann

Estelle Lönnberg

Ewa Sitkiewicz

fek03nki@student.lu.se

estelle_lonnberg@hotmail.com

ewasitkiewicz@gmail.com

Table of contents

1. Introduction.....	1
1.1 Background	1
1.1.1 The Changing Context	2
1.2 System Evolution.....	2
1.2.1 Problem Discussion	3
1.2.2 Current Research.....	4
1.3 Questions at Issue.....	5
1.4 Purpose.....	6
1.5 Fundamental Notions	6
1.6 Disposition	7
2. Methodology.....	9
2.1 Research Design	9
2.1.2 Data Gathering Background.....	10
2.1.3 Information Gathering Process	11
2.1.4 Compilation of the Gathered Information	12
2.2 Methodological Discussion	12
2.2.1 Alternatives	12
2.2.2 Replicability.....	13
2.2.3 Validity.....	13
2.2.4 Reliability	14
2.3 Delimitations	14
3. The Empirical Section.....	15
3.1 Results of the Empirical Study	15
3.2 Contributors of the Empirical Information.....	15
3.2.1 Presentation of the Principal Study Object: Conveneer	15
3.2.2 Company Alpha	16
3.2.3 Company Beta.....	16
3.2.4 Christer Månsson	16
3.3 The Telecommunication Market	17
3.3.1 The Rigidity of the Telecommunication Market	17
3.3.2 Changes on the Market? The Role of the Mobile Phone Operators.....	18
3.3.3 Access to the Market.....	20
3.4 Partnerships and Alliances	21
3.4.1 The Search for Potential Partners.....	21
3.4.2 Risks Associated with Alliances and Partnerships.....	23
3.4.3 Threats Related to the Co-operation with Smaller Firms	24
3.4.4 The Question of Complementary Resources	24
3.5 The Emerging Standard: IMS.....	26

4. Theory.....	29
4.1 Entering the Market.....	29
4.2 The Resource Based View.....	30
4.2.1 The Network Theory related to the Resource Based View	31
4.3 Foundations of the Network Theory	32
4.3.1 Creating a Network.....	32
4.3.2 Theoretical Networking Cogitations.....	34
4.3.3 Prearrangements of Strategic Business Relationships.....	35
4.4 Strategic Business Relationships.....	35
4.5 Network Externalities and Standards	37
4.6 The Analytical Framework.....	39
5. Analysis.....	41
5.1 From Innovative Idea to Successful Product – a Clear Path?	41
5.2 Applying the Resource Based View.....	42
5.2.1 Identifying the Resources	42
5.2.2 Evaluating the Resources	43
5.2.3 The Potential of Resource Pooling.....	45
5.3 Applying the Notion of Networking.....	45
5.3.1 The Creation of a Network	45
5.3.2 Risks Related to Allying with Bigger Companies	47
5.3.3 The Determination of Which Partner to Approach.....	48
5.4 Applying the Framework of Network Externalities and Standards.....	50
5.5 Centralising the Analytical Framework.....	51
6. Discussion and Results.....	53
6.1 The Authors Discussion	53
6.2 Questions at Issue.....	54
7. Reflections.....	57
7.1 Methodological Considerations.....	57
7.2 Theoretical Considerations.....	57
7.3 Implications for Future Research.....	57
I. Glossary of Technical terms and Definitions.....	59
II. References	60
III. Interview Information	63
IV. Interview Information and Questions for Company Alpha and Beta	65

A List of figures

Figure 1 The overlapping network fan	34
Figure 2: Positive feedback	38
Figure 3 The Analytical Framework.....	39
Figure 4 The Analytical framework.....	51

B List of tables

Table 1: Reasons to enter partnership	36
Table 2 External and Internal Resources	43

1. Introduction

This chapter presents a general idea of the importance attached to the notion of being innovative along with the different technological standards. In addition, it brings up the role of the mobile phone in everyday life in order to get a perception of the size of this industry. It also informs about the changing context in the mobile telecommunication sector. Finally, this chapter includes a discussion of the problematic setting to be dealt with in this thesis.

1.1 Background

“A slow sort of country” said the Red Queen. “Now here, you see, it takes all the running you can do to keep in the same place. If you want to get somewhere else, you must run at least twice as fast as that!”

LEWIS CARROL, ALICE THROUGH THE LOOKING GLASS

This quotation by Lewis Carrol is indeed an inspiring and fundamental one, which in an understandable way also represents the significance of the concept “innovation”. To obtain a good market position a company needs to realize the essence of being twice as competent as the competitors.

Nowadays, product innovations can be realized in faster dimension principally due to the services the internet offers. This facilitates the access to the era of advanced technical magnitude. As argued, innovation and competitive advantages are often positively correlated to each other, due to its capacity of enhancing an innovation’s design, customization and quality (Tidd et al., 2001).

Operating in a world full of innovative thinking helps to confront ongoing challenges generated by competition and market demand (Tidd et al., 2001). During the process of choosing a dominant design, by this referring to the adoption of a technological standard, organizations may choose to ally to strengthen the potential comparative advantage of an innovation.

Furthermore, if a company is capable of protecting its innovation, there is a possibility to dominate the market and thus, setting new standards (Stango, 2004). Consequently, benefits will emerge, as being able to predict the evolution of an industry, as well as, its future products. This allows – if rightly managed - the innovator to reach a respectable prominence compared to its rivals based on the first-mover-advantages. The possession of this kind of competitive advantage in comparison with ones’ competitors could be lucrative, as a *winner-takes-all situation* could emerge.

However, the risk of not being chosen as a dominant design is realistic and consequently will force the company to adopt the dominant technology in precaution of the risk of being totally locked out of the market (Schilling, 1999).

During the information age, market dominance is seen as crucial. Innovative high-tech companies carry responsibilities for the breakthrough of standardization, either through being a leading character or as a part of an alliance. As the Red Queen stated above, it seems necessary to be twice the better, the faster and the ingenious to capture a lucrative market position in a rapidly changing and competitive world. This conclusion is supported by the assumption made by Shapiro et al. (1999);

“The winning strategy is the decisive factor for the survival of these very companies.”

1.1.1 The Changing Context

Many technical instruments have been developed into tools useful in more than just one area, facilitating the human lives tremendously. As is the case of the mobile phone, a tool that has gradually become a part of our daily life. As it already penetrates the American and European market it is about to discover emerging markets as Africa, China, India and South-America.

It is expected that one billion cell phones will be sold the year 2009 if these developing markets keep growing steadily, and consequently will be seen as sources for positive profit margins.

By the end of the very same year there will be 2.6 billion cell phones in use (*Mobiles head for sales milestone*, BBC News). Only in Sweden 3.2 million cell phones were sold in the year 2004 (*Ras i mobilförsäljning*, Dagens Industri). The sales volume of 750 million cell phones could be confirmed in the year 2005 by the data research company Gartner (*Cell Phone Sales Defy Predictions, Hit Record Levels*, TechNewsWorld).

Mobile phones are gradually getting more and more sophisticated; besides making verbal communication possible, it also supports other functional appliances such as virtual calendars, games as well as the sending and receiving of SMS and MMS. To enable this, a strong focus is also addressed to the development of software and operating systems in the telecommunication world. From 1-G¹, enabling regular phone calls with the cell phone, to 2-G, with the contribution of the text messages mechanism (i.e. SMS) and an improved voice quality.

Since 2002 3-G is the current mobile standard. 3-G empowers cell phones with a larger capacity of file transferring, which accelerates the process of sharing files between units. Furthermore, it allows sending and receiving pictures, animations and an advanced application of internet services (i.e. MMS). MMS relies on Wireless Application Protocol (WAP) and is standardized by the WAP Forum, 3rd Generation Partnership Project (3GPP) and 3rd Generation Partnership Project 2 (3GPP2). 3GPP is a cooperation between selected geographical areas such as China, Europe, Japan, North America and South Korea, which are operating through organizations supporting the standardisation of cellular communication system in their local domane. 3GPP2 is similar to 3GPP but is based on another standard for 3 G technology.

Currently, the 4-G is under development, which will predictably be in use during the years 2010 to 2015 (*Wikipedia, The Free Encyclopedia*).

This new mobile telecommunication standard constitutes a huge step in the development of the mobile industry and opens the door to a new area of personifying cell phones to a progressive all-around-tool.

1.2 System Evolution

Traditional mobile networks are often centralised by nature, by this assuming that a single mobile content provider distributes data content towards several recipients. The IP Multimedia Subsystem (IMS) is such a centralized system that offers multimedia services, to mobile networks

¹ For definitions, consult the Glossary of Technical Terms and Definitions in chapter 8

as well as fixed networks, through the Internet Protocol (IP) network, compressing data to an IP-package. This mechanisms allows to converge voice- and data- services, video calling and even television. In contrast, 2-G and 3-G were not able to support similar possibilities.

IMS is about to set a new standard in the vast area of cellular telecommunication, and will be in full use year 2007/2008, after having accomplished the necessary testing phase. This new IMS infrastructure is expected to grow constantly from the amount of 561 million the year 2005, to 1,2 billion in 2006 further to 1,9 billion in 2007, to a potential 2,6 billion in the year 2008(*VDC: IMS market \$2.6 billion-plus by 2008*, Telephony Online). The IMS system is said to merge the benefits provided by internet and the cellular dimensions, which supposedly leads to cost reduction for the customers.

Symbian OS is an "open" operating system (i.e. platform) for mobile devices, which exhibits its functionality to the licensee and consequently allows him/her to customise it for specific requirements for advanced mobile phones (Symbian). Currently its owners consist of a sizable network; Ericsson, Panasonic, Siemens AG, Nokia, and Sony Ericsson.

1.2.1 Problem Discussion

The value of a network goes up as the square of the number of users.

METCALFE'S LAW
(Shapiro et al., 1999, p.184)

As the rate of technological changes aggravates, the quest for attaining competitive advantages is becoming more and more complex. While the theoretical contributions tries to keep up with the changes, one can identify at least two generally accepted approaches in the studies of competition in knowledge-based markets; it pays to hit the market first and it pays to have superb technology (Arthur, 1996). Nevertheless, this does not seem to be enough in today's economy where standards battles have become an increasingly frequent part of the high-technology sector. Some authors even stress the view that almost every high-technology company in some way has some role to play in these battles (Shapiro et al., 1999).

The gist of Metcalfe's law is the importance of reaching a critical limit of users as to conclude whether a technology is of significant value. In other words, no matter how superior the aspiring technology is compared to the existing one, it does not have an effect on the value of the new technology if it does not reach a sufficient number of end users.

Several authors (Chakravorti, 2004, Schilling, 1999, Arthur, 1994, Shy, 1996) have also recognized the possibility that the value of the technology or the innovation to any user, and thus the revenue from the innovation, increases as the number of other users increases. This is often referred to as network externalities and is valid concerning most information- and network- intensive products that have been the focus of the recent 20 years of innovations: for example the fax machine, computers and the mobile technology (Chakravorti, 2004).

The network externalities imply that the success or the failure of a company would consequently be dependent on the ecologies, i.e. environment, that the company's products belong to (Arthur 1996). The momentum of the ecologist perspective is that, unlike products of the processing world (such as soybeans or rolled steel), technological products exist within local groupings of products that support and enhance them. This perspective is further supported by other more

recent studies that points out the imperative of belonging to a network when competing in the modern economy (Rese, 2006).

New-to-the-world companies' i.e. new companies on the market, possessing new technologies, might come across problems while trying to gain access to the market. The fundamental issue is how the firm may design its product and supply architectures to make sure they are aligned with other components in the context they are operating in (Fine, 2000). When a new technology is introduced by a new firm, neither the technology nor the firm have experience or credibility to assure investors that the product will be successfully granted (Schilling, 1999).

According to the resource-based view a firm is comparable to a broad set of resources that it possesses, "a firm is said to have a competitive advantage when it is implementing a value creating strategy not simultaneously implemented by any current or potential competitors" (Barney, 1991). This is further highlighted by Das et al. (2000): "The resource-based rationale emphasizes value maximization of a firm through pooling and utilizing valuable resources".

Thus, we find that the resource-based view could provide a fundamental approach on how to gain access to resources through strategic alliances, that would not otherwise be available to the firm in question (Das et al., 2000). Another important note to this chapter is that a single firm can contribute to an alliance through a differentiated set of resources.

When also bearing in mind the fact that small and medium-sized companies (from now on referred to as SMEs) often lack the financial and/or technical resources to equally compete with large competitors, the development of an appropriate partner network may be of help and enable a SME to gain access to resources typical of more established firms (Schilling, 1999). This is further supported by Das et al. (2000) who points out that one of the reasons for a SME to align with a large, multinational corporation could be the potential to gain admission to financial, technological and managerial resources that they do not possess themselves.

In conclusion, the technological environment for the small innovative company denotes several challenges. Not only does it imply that one have to possess a superb innovation but it also implies that there are several hindrances to launching the innovation to the market.

Numerous investigations have shown that standards settings and network externalities play an important role during this phase. When a firm has limited resources, one way of gaining admission to the network (i.e. obtaining network externalities) could potentially be through strategic alliances.

1.2.2 Current Research

Though maybe a bit outdated, the research made by Schilling (1999) shows an interesting view of how the firm can influence the size of its installed base and the availability of complementary goods, through its distribution, alliance, and marketing strategies. Schilling (1999) emphasizes the importance of applying a new framework for the dynamics of technology selection, different from the traditional strategic management imperatives. Other authors (e.g. Shapiro et al., 1999) have elaborated a framework for how to win standards wars and have tried to provide an extensive check list on how to compete in the high-technology market and also how to stay competitive once you have set the technological standard.

Research has shown the importance of evaluating the network and alliance composition when introducing a new product to the high-technology market (Arthur, 1996, Baum et al., 2000, Chakravorti 2004, Shy, 1996). Other studies (Rese, 2006, White et al., 2005) have focused on the diffi-

culty when choosing a strategic partner with the goal of obtaining successful and sustainable business partnerships.

There has been several studies aimed at diagnosing the patterns of technological cooperation activities in specific markets, such as the Korean telecommunication sector (Chung et al., 2003) and the Canadian biotechnology sector (Baum et al., 2000), as the high technology environment provides many aspects to consider different from the 'traditional' alliance literature mainly focused on the transaction cost rationale.

However, there are studies (Das et al., 2000) that have provided a more modulated view of the strategic decision process involved in alliance forming, e.g. complementary resources and resource pooling, where the research made by Barney (1991) and the resource-based view has exercised an important foundation. Nevertheless, few researchers have focused on the small company perspective when considering the benefits and rationale behind alliance forming, and thus provided a fuller approach to the resource-based view framework in alliance forming.

Neglecting the smaller company perspective might be of danger, when considering the practical implications of this theory gap. *Should the small innovative company apply the same sort of reasoning behind its partnership decisions as the bigger one?*

Based on this latter question, it would be of academic interest to further investigate the rationale behind strategic alliances for small innovative companies in the high technological sector.

1.3 Questions at Issue

The possibilities of accessing the market through strategic alliances are evaluated by observing a small innovative firm and two of their potential partners.

Finding investors and forming alliances is a crucial part for a SME which does not possess more resources than the innovation itself. Even though the purpose to form an alliance derives from different reasons, the main motive for each of the partners is to achieve competitive advantages (Das et al., 2000).

The SME possesses a unique resource which it wants to exchange in return for resources it can not achieve internally. This is why the small innovative firm has to expose its innovation to become attractive to investors and possible partners that could help the firm achieve a breakthrough. These assumptions result in a context where it is interesting to investigate the different relationships that the SME establishes in order to gain access to the resources it lacks.

A case study is undertaken with the help of a theoretical framework based on the resource-based view and the network theory, with the purpose of exploring the possibilities for a small innovative firm to form an alliance with a partner. The purpose can hence be summarized in three questions:

- How can a small innovative firm disclose the right partners with the intention to access the market?
- What are the risks that can arise through strategic alliances for small innovative firms?
- What are the chances for a small innovative firm to survive in a strongly dominated environment?

1.4 Purpose

The purpose of this thesis is to understand and evaluate the possibilities for a small innovative company like Convener to gain access to the market through partnerships and strategic alliances.

1.5 Fundamental Notions

During the course of this paper some notions will be used repeatedly. Hence to clarify our starting point and to simplify matters for the reader, a definition of the most frequently used notions will be accounted for in this section.

Resource pooling

The notion of resource pooling refers to the act of two or more companies exchanging resources with the purpose of achieving some kind of mutual goal. (Das et al., 2000)

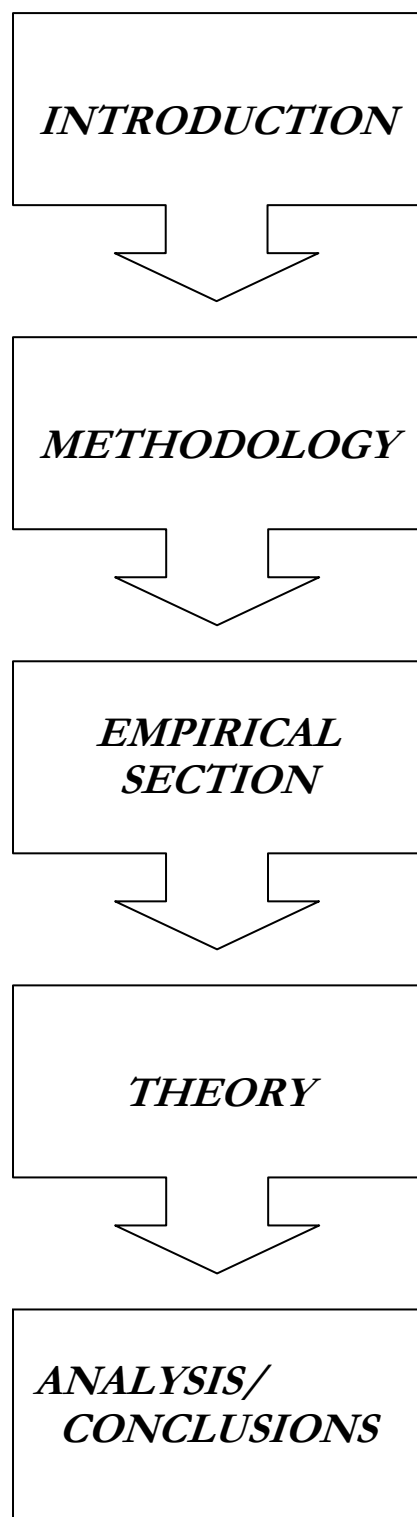
Strategic alliances

Our approach concerns strategic alliances as they have been formulated by Das et al. (2000); “Strategic alliances are voluntary cooperative inter-firm agreements aimed at achieving competitive advantages for the partners.” The terms of strategic alliances and partnerships will be used as synonyms during the course of this paper, thus no other signification will be attached to the two terms than the above stated.

Standards

When talking about standards or more specifically *technological standards* in this paper we will refer to the following described phenomenon; “In many markets several forces encourage the selection of a single technology standard (i.e. dominant design). (...) When a market is still in the process of selecting a dominant design or standard, many alternative technologies may be on offer. (...) Coalitions may emerge and shift, as groups of companies adopt and promote competing technology platforms. Firms sponsoring a particular technology usually have a considerable investment in the design — both in terms of physical assets and learning— so they have a keen interest in supporting a technology they believe has a good chance of becoming the standard. If the firm supports a technology that is not chosen as the dominant design, it may be forced to adopt the dominant technology, forfeiting the capital, learning and brand equity invested in its original technology” (Schilling, 1999).

1.6 Disposition



In this chapter the reader is introduced to the purpose of this paper and the complex context related to competing in the mobile telecommunication sector and the restraints that this imposes on the aspiring firm. Furthermore the reader is initiated into some fundamental notions that will be used throughout the paper.

The second chapter describes the actual working process and other methodological aspects that were to be considered during the process.

The empirical section contains all of the relevant empirical data collected during the course of the interviews. The empirical data later constituted the basis for the selection of a theoretical framework.

In this chapter the theoretical framework in this paper is accounted for; a theoretical framework that contains selected parts from Porters Five Forces frame work, the resource based view, network theory, network externalities and standard setting principles. The analytical framework, and thus the theoretical tool set used to perform the analysis, is summarized in the last section of this chapter.

This section begins with an analysis that takes its starting point in the empirical data and the problematic area encircled during the course of the interviews. The conclusions that can be drawn from the analysis is later structuralised and accounted for in the concluding and final chapter.

2. Methodology

In this chapter the methodological approach in this paper will be accounted for. This overview is based on three parts; first a description of the information gathering background and process; second a methodological discussion based on the notions of replicability, validity and reliability; and finally a definition of the chosen methodological delimitations.

2.1 Research Design

The chosen phenomenon of this paper – a newly started high-tech company named Convener - exists in a very complex context. This is principally due to the semi-confidential information needed to evaluate the organization's possibilities to engage in any kind of alliance, or for that matter to compete in the market at all. Accordingly, to be able to assess the organization's attractiveness to potential partners, one has to access at least some perspicuous information about the technology offered by the organization. This information is required to be able to gauge how the offered technology might appear appealing to other actors present in the technological network/surroundings in which the organization operates.

Since the chosen approach concerns an examination of the possibilities for the company to gain access to the market, one can imagine that the offered technology is probably not yet fully protected through patents and other legal protections. This kind of situation denotes a lot of responsibility to be confided to an external party (i.e. the observers). Hence, it demands a high degree of trust between the study object and the observers.

As a consequence the delicate situation and surroundings of the observed phenomena entail some difficulties in finding a study object willing to accept the risks involved in a similar information sharing process. To be able to realize the purpose of this paper, with the above cited set of problems in mind, a case study of a single organization was chosen.

Yin (Backman, 1998) describes the case study as a research design aiming at “investigating a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used.” This definition presumes an underlying difficulty in drawing the outer boundaries of the chosen problem and/or study object, which must be taken in to consideration when choosing this type of research design. Bryman (1989) has described the case study design as particularly appropriate when studying specific areas of organization functioning that are prior not well documented.

In this paper, the unit of analysis is the specific organization (i.e. Convener) and its potential to take part in collaborations with a defined set of partners/customers on the manufacturer side (specifically OEM – Original Equipment Manufacturers) of the mobile telecommunication industry. The delimitation of potential partners to be studied was based on the potential partner's estimated capacity (in the shape of resources, capabilities and size of partner/customer network) to support a market penetration for a small company in a similar situation as the study object.

2.1.2 Data Gathering Background

The researcher must choose a procedure and a method that provides him or her with the relevant data regarding the purpose or hypothesis previously formulated in the introduction (Backman, 1998).

Since the chosen object of this study, Convener, was one single organization (with no more than two full-time employees) and its potential partners on the manufacturer side, a qualitative approach was deemed to be the most appropriate. This approach was judged to provide a more profound base when bearing in mind our stated purpose.

When describing the working process of this report, it could be of value to point out that a vague purpose was formulated during the initial phase which was later specified during the information gathering process and the compilation of relevant information. This is often valid for the qualitative approach according to Backman (1998). He states that the qualitative approach often is characterized by a working process whereas the specific purpose or set of problems to be investigated often are specified simultaneous and continuous during the information gathering process.

Hence as confirmed above, the empirical data gathering background were in favour of a qualitative research method; namely the case study. The case study was performed by the means of two semi-structured interviews with potential partners on the manufacturer side and two semi-structured interviews with the managers at Convener.

Those interviews were further complemented by several 'open' interviews, concerning the problems status, with the managers at Convener. Furthermore, three persons with sufficient 'expert' competence were interviewed, regarding the theoretical and the practical context.

As aforementioned, the potential partners were chosen on the basis of several criterions; as to be more profoundly accounted for in the analytical section of this report as it constitutes an important part of the analysis. The selected partners were considered to be the most 'critical'. As a consequence, a smaller set of potential partners were chosen in favour of a broader set. This decision was influenced by the intention to provide a more insightful analysis as well as to prevent the case from growing to large.

The semi-structured interviewing technique involves a process by which the researcher has a list of questions on fairly specific topics to be covered, often referred to as an 'interview guide'. The interviewee is supposed to be left with a great deal of flexibility when responding. (Bryman et al., 2003). As opposed to a descriptive approach, the purpose of this report is of an exploratory nature. For this reason it appeared appropriate to leave the interviewee with some leeway and not restrain the interviewee's freedom of expression too much with a more 'closed' interviewing technique. Nonetheless, the notion of semi-structured interviews implies that the main topics of discussion were predetermined. The purpose of the interview was not to capture the personal opinions of the interviewee. The intention was rather to expose the general attitude of the potential partner, specifically regarding strategic alliances with SMEs of similar size and technology as Convener.

All of the interviews were conducted in Swedish; hence one should be aware of the fact that the quotations might have been slightly modified in order to facilitate the reader's comprehension of the empirical information.

Finally, it was decided only to analyse and evaluate the potential of strategic alliances, not how to undertake the alliance (i.e. the operational process) or when to commence the alliance (i.e. the strategic window).

2.1.3 Information Gathering Process

Before interviewing any potential partner or even setting the purpose of the report, an initial meeting with one of the managers at Convener, named Richard Lindberg, was held.

This meeting was carried out in order to get an overview of the company and its technology. The information gathered during this meeting was also intended to provide us with a basic overview of the problematic issues related to the launching of the company's technology to the market. With the manager's version of the problematic area in mind, a broader definition of the purpose was defined and relevant literature was reviewed.

The second phase of the data gathering process took place during the course of two 'open' interviews with persons not connected to the specific situation. Those persons were instead considered to be in possession of a deeper knowledge regarding alliances, the mobile telecommunication sector and different types of pre-market competition.

Those 'open' interviews during the early phase of the information gathering process were intended to provide as much data and information needed to offer a fairly good idea of the nature of problems that were to be considered in the report, and possibly where to find relevant literature and articles. In close relation to these two interviews a third interview was held with Christer Månsson at Teknopol. Christer has profound practical experiences from the telecommunication sector, as well as some overview of Convener's current situation.

When the first draft of the purpose formulation was moulded, the seeking for potential partner companies to interview began. Fairly early during this process, another 'open' interview was held with the same managers at Convener, Marc Klefter and Richard Lindberg. This interview was intended to provide an understanding of which resources the company lacked, as well as which resources they considered to be most critical for the company to possess to be able to launch its technology. The managers' opinions were taken into consideration along with our estimation of the situation, and a 'wanted'-list was constructed. This 'wanted'-list was later complemented with companies/organizations that possessed these resources, and a selection of potential partners was committed.

When the selection was made, the potential partners were contacted and briefed about the purpose of this paper and asked for their cooperation. The interviewees were both senior market representatives, and were thus regarded to possess enough information to be able to answer confidently. Both persons responded positively to the inquiry and one interview per company was held. Here it should be denoted, that in order to ensure the integrity of the persons at the potential partner companies, both they and their company's name were guaranteed full anonymity. The potential partners were henceforth referred to as Company Alpha and Company Beta.

The purpose of those semi-structured interviews was to get an idea of how 'needed' Alpha and Beta considered the technology proposed by Convener to be. Furthermore, also their attitude towards engaging in a collaboration with a company possessing such a technology was to be investigated. Here it should be stressed that those chosen companies were considered to be adequate regarding the stated purpose of this paper. This assumption is based on the fact that Convener is a small high-tech company, which has yet to reach the market; at the same time as Alpha and Beta are well established, well-known on the market and can be considered to be big actors in the industry. The antithetic preconditions of Convener versus Company Alpha and Beta, are highly suitable to the exploration of our chosen purpose of study.

To prepare the interviewees and also for them to be able to answer the rather specific questions, some background information were distributed in advance. This background information contained some perspicuous information about Convener's technology, as well as the main topics to be covered during the interview.

However, this action of providing the interviewees with some background information in advance implies that we must consider the possibility that the interviewees might have modified their answers. This might imply that they did not answer in the same way they would have if the questions and the topics were not distributed in advance. This background information was nevertheless regarded to be necessary, in view of the complex questions at issue.

After the two potential partners had been interviewed, two complementary interviews were held with the two managers at Convener; Marc Klefter and Richard Lindberg. Those interviews were held in order to be able to ask the same questions to them as to the potential partners, to be able to assess the potential complementary of the two companies and their technologies.

None of the interviews were recorded, but were to be written down directly on paper by two persons, with the third person acting as interviewer. The collected information were in a later phase of the process put together, to prevent any details or nuances to get lost compared to putting information together too early in the process.

2.1.4 Compilation of the Gathered Information

As stated, all of the collected information were assorted and classified in a later phase of the process. This classification was done according to the relevancy regarding the stated purpose of the paper, as well as the perceived analytical value of the information. This procedure, however, may imply that some information might have got lost during the process of selection of relevant data. Even though this might be a possibility, the overall impression is that nearly all of the gathered information were included in the empirical section of this thesis.

Once the classification was done, the information was categorized according to three main headlines; information about the telecommunication market, the potential of alliances and partnerships and, finally, a discussion concerning IMS as a possible technological standard. This categorization was made in order to facilitate the analytical process and hence the comparison of the empirical and theoretical data.

The collected information influenced, in its turn, the selection of models to be employed in the analytical framework. Finally, in the analytical section, the empirical information was analysed vis-à-vis the analytical framework and the different theoretical models.

2.2 Methodological Discussion

2.2.1 Alternatives

One alternative approach in studying this phenomenon could have been through a comparative design where the study objects could have been one company ready to launch its technology through alliances and with the other company already present on the market. The latter company would then had undergone the same problematic process and had been in possession of a similar amount of limited resources as Convener.

This design is recommended by Bryman et al. (2003) because of its possibilities to provide a deeper understanding of a social phenomenon, when comparing two or more meaningfully contrasted cases or situations.

However, the comparative design was judged to have provided a too complex and non specified overview of the phenomenon, since it is almost impossible to find a company with the same fea-

tures in the same context. This is especially valid since the mobile industry is fast-changing and thus the conditions for success as well.

Other alternative approaches could have been possible, but the chosen case study of a single organization was deemed to be most appropriate regarding the stated purpose.

2.2.2 Replicability

An important issue regarding all research is the replicability; in other words the replicability of findings and the likelihood of other researchers conducting the exact same study to come to the same conclusions as the original researcher. This is especially delicate regarding the qualitative method, according to Bryman et al. (2003). The authors claim the qualitative method to be more unstructured and more reliant on the researcher's ingenuity than the quantitative method. This implies that the replication of a qualitative study would be more intricate and less likely lead to the same conclusions as the replication of a quantitative study.

However, in the mobile sector industry there are some well-known dominant actors which more or less set the scene for the smaller actors. This is well known for all persons with some insight in this industry. This implies that the set of partners possessing the right resources to enable a smaller company to reach the market is rather limited. Those companies can as a consequence, more or less take their pick amongst smaller partner firms. This situation suggests that the chosen study objects are well aware of the aspects to be studied in this paper and are as a consequence, well aware of the problematic context. Moreover, they are rather used to taking decisions in similar situations. This indicates that the likelihood of the potential partner companies to give the same answers in a similar study is rather high. Thus, the replicability of findings is judged to be strong.

2.2.3 Validity

The term validity relates to whether or not the results of the study are judged to be valid, both externally and internally. Bryman et al (2003) have explained the internal validity as to whether there is a good match between researcher's observations and the theoretical ideas they develop. The same authors have explained the external validity as the degree to which the findings can be used to make generalizations. They also argue that unlike internal validity, external validity represents a problem for qualitative researchers because of their tendency to employ case studies and small samples.

The internal validity of the findings is often related to the notion of *credibility* (Bryman et al., 2003). This indicates that the study has to be performed according to good practice and that the research findings should be submitted to the interviewees to ensure that the interviewer has correctly transcribed the information. Regarding the first aspect of internal validity, it is important to point out that all of the interviews were performed according to good practice and were made as transparent to the interviewee as possible. The transparency is assured by following the earlier stated method of allowing the interviewees to review the collected material after the interview. LeCompte and Goetz (Bryman et al., 2003) argue that internal validity tends to be a strength of qualitative research since the closer interaction with the study object allows the researcher to ensure a high level of congruence between concepts and observations.

Concerning the external validity one has to understand that the purpose of this paper is not to try to claim a theoretical generalizability on the basis of it, but to *provide a deeper understanding of the selected phenomenon by the means of a case study*. This however, does not imply that one can not draw any conclusions at all from the findings, but that one has to be vigilant when trying to apply the same framework to other cases.

2.2.4 Reliability

The term reliability reflects both the supposed external reliability ; the degree to which a study can be replicated, and the supposed internal reliability ; if the members of a research team composed of more than one observer agree about what they see and hear. (Bryman et al.,2003).

Since the term replicability already has been dealt with in an earlier section, the following discourse will treat the internal reliability which can be a problem when using personal interviews as a method. The technique of personal interviewing poses great demand upon the person carrying out the interview in terms of awareness of the different forms of biases that can influence the answers from the interviewee, as stated by Bryman et al. (2003).

One of those potential biases is that the interviewee gets a chance to change its answers since the questions were distributed in advance. This on the other hand, should be weighed against the potential biases that could have arisen if the interviewee did not possess enough information to be able to correctly answer the questions. The difficulties with translating the information provided by the interviewee were aimed to be diminished through the practice of two persons transcribing the interview simultaneously and putting it together at a later point in time.

It is, however, impossible to perfectly eliminate the effect the interviewer has on the interviewee during the information gathering process.

2.3 Delimitations

Our approach concerns strategic alliances as they have been formulated by Das et al. (2000); “Strategic alliances are voluntary cooperative inter-firm agreements aimed at achieving competitive advantages for the partners.” Thus we have decided not to evaluate which kind of strategic alliance to enter (contractual, joint research etc.), only *the reasoning behind entering the alliance and the alliance’s potential to succeed*.

Additionally, we have decided not to examine the possibilities of our study object to take part in mergers and/or acquisitions. The paper by Das et al. (2000) points out that strategic alliances will be preferred when the discounted present value of the deployment of the firms resources in the future is greater than the realized value of selling its resources in the present. Our opinion is that Convener’s resources will hold greater value in the future than if they would sell their resources in the present. This because of they do not have any customer clientele or licensing agreements that would generate any profit which could convince potential buyers to pay a price equal to the future market value. Furthermore, we also have the opinion that the small size of our study object Convener would considerably reduce their possibilities to engage in an even-handed merger, and thereby reducing their chances to withdraw profit from their resources. Finally, it is important to accentuate our decision to only examine Convener’s possibilities of reaching the market via alliances. This decision means that we restrict the paper from investigating the end-consumer’s opinions about the attractiveness of Convener’s technology .

3. The Empirical Section

In this chapter a selection of the data obtained from the interviews with the different contributors of the empirical data will be presented. The selection was made on the basis of the relevancy regarding the started purpose vis-à-vis the analytical framework.

The chapter begins with an introduction of the interviewed parties, then proceeds with their view of the situation in question. The findings are structured according to three main headlines; the telecommunication market, partnerships and alliances and standards. Each headline further contains several subheadings.

3.1 Results of the Empirical Study

In order to be able to present a more unambiguous portrait of the situation, the empirical findings are presented *by subject and not by company*. The purpose of the interviews has been to get a picture of the different parties' view of the situation on the telecommunication market, as well as, on Convener's technology and attractiveness to potential partners.

To prevent the reader's focus from getting too scattered, and also according to the interviewees' wishes, the potential partners' identities have been withdrawn. As aforementioned, this study refers to the potential partners as Company Alpha respective Company Beta.

Any perceived subjectivity is according to pronounced statements made by the interviewees.

3.2 Contributors of the Empirical Information

3.2.1 Presentation of the Principal Study Object: Convener

Convener is a small company established in October 2004 by Richard Lindberg, CEO, and Mark Klefter, CTO. Initially started as a small project, Convener was supported by Lund University through its establishment *Venture Lab*. The two founders originally met during the summer 2003, whilst they were still students. Richard Lindberg studied Management at Lund University while Marc Klefter focused on his studies in Engineering Physics at the faculty of Engineering LTH, also at Lund University. The mutual interest in mobile technology and the technical sector brought them together at a summer job. Hence, they decided to take on a common project.

The core of Convener's business idea is a unique and patentable technology concerning a content delivery network functioning. This is applicable both on mobile devices and the Internet.

The content delivery network designed by Convener is based on the Internet Protocol network (IP); a solution that implies that no other complicated appliances than an Internet Protocol address is required to be able to use the technology. This revolutionary idea is supposed to facilitate the consumers' willingness to adopt the technology, as well as, collaborators' opportunities of designing complementary technologies. Besides the fact that it is based on the already existing IP-network, it is of a decentralized nature and not dependent on costly infrastructure investments. Furthermore it offers a variety of services not currently provided by its competitors.

With a centralized solution, the content is distributed through the central mobile content provider (one source) towards many users (several destinations). The decentralized solution offered by Convener, on the other hand, presents the opportunity of the users *interacting directly with each other, without the interference of a central supplier*.

Users of the Convener Mobile Services platform might be 3G customers or a group of W-LAN connected individuals, who shares content on the behalf of the operator in order to speed up content delivery. In this stage of the process, Convener aims at functioning as a complement to the mounting IMS-system. IMS-system is a centralized solution of data exchange, developed by several big actors in the mobile sector, hereby enabling a variety of potential collaboration partners.

The company is for the instant surviving through different grants raised through the participation in several business plan contests. Finally, it is important to point out that they have put a lot of effort into attracting the right people to their advisory board. As a result, Convener is in the possession of a mixed and utterly competent advisory board, which contains all kinds of influential people from the University and the business world.

3.2.2 Company Alpha

Company Alpha is a large manufacturer of mobile devices, present in most markets worldwide. The company offers equipment, solutions and services for network operators and corporations. Company Alpha is a gigantic corporation with net sales ranging from EUR 20 000 billion per year, for the period of the last five years. Currently Company Alpha engages over 50 000 employees all around the world. They have several departments of in-house research and development and also possess a department explicitly directed towards developing and identifying new business ideas.

3.2.3 Company Beta

Company Beta is equally a large manufacturer of mobile devices, present in most markets worldwide. The company offers equipment and related services to mobile and fixed network operators. Company Beta is a large corporation with net sales ranging from EUR 12 000 billion per year, during the last five years, and has been an active participant in several standardization forums throughout the years. The company is a promoter of open standards and systems and it has a clear strategy of forming partnerships with application developers and content providers.

3.2.4 Christer Månsson

Christer Månsson is an expert consulted in the thesis on the basis of his wide experiences from the telecom sector and the fact that he has some insight in Convener's technology and business idea; although he is not deeply involved in the company. He is currently employed by Teknopol AB, an organization supported by Region Skåne. This organization focuses on offering services to small, newly started companies in developing their business ideas.

Teknopol AB pursues giving their support by offering financial aid and general assistance to entrepreneurs in the knowledge-intensive business area. Christer has acquired his experiences in the telecom section through his background at Ericsson Mobile, Telenor (former Europolitan and

Vodafone), Aspiro, as well as from the digital media and experience industry. Having this kind of occupational history provides Christer with an adequate base for coaching small business like the study object Convener. He has furthermore provided Convener with some of his personal contacts within the telecom industry.

3.3 The Telecommunication Market

The telecommunication sector and the information technology sector may look alike from a distance, but contains great differences, according to Christer Månsson. He has the opinion that the computer industry is to a larger extent dependent on entrepreneurship and innovative ideas of which some of them later develop into standards. The telecommunication industry, on the other hand, was constructed through different countries imposing their own telecommunications standards. Those standards were later obliged to be converged to enable communication across the borders; something that he thinks has widely affected the whole industry. The ones building systems and aiming at being a part of the telecommunication industry has to adapt to these circumstances; this dependent on the fact that no one can dominate the whole industry in the same way as they can in the computer sector.

3.3.1 The Rigidity of the Telecommunication Market

According to Christer Månsson the main problem concerning the telecommunication industry is that the existing actors in the industry so often are locked to the *old way of thinking*. In other words, they are still stuck in the thinking associated to the imagination of them 'owning' the customer; something that a lot of people do not consider to be applicable for much longer. Speaking from his experience, the mobile phone operators only have one question for a potential content provider, aiming at collaborating: *Can you affect the traffic to a degree to which we could increase our revenues with 1-2 percents?* This is naturally very difficult for a small actor like Convener to promise, since a one percent increase in revenues for an actor on the, yet small, Swedish market would involve figures in terms of SEK 150-200 million.

The rigidity of the telecommunication market has also been discovered by the managers at Convener, Marc Klefter and Richard Lindberg. They also think that one of the problems concerning the telecommunication market is that the actors on the market are caught in their 'old way of thinking';

Everyone that we have told about our idea thinks this technology is really interesting and exciting. But the problem is that for the most part, people do not understand the technique behind it and thus the diversification potential behind it. The possibility of directly streaming music from other peoples' mobile telephones does not get easily grasped.

Moreover, they have discovered that it is not only the other actors on the market that have difficulties in understanding the opportunities offered by new technology, but the customers as well. They too, seem to be left behind in the technological advancements made during the past few years. Marc explains;

One of our potential customers has expressed the wish of being able to e-mail from their mobile phone during the year 2009. This is totally understandable to

me, I mean, this is already possible, but people just do not understand the possibilities.

3.3.2 Changes on the Market? The Role of the Mobile Phone Operators

Company Alpha considers the mobile industry value chain to be constituted of three main parties; the mobile phone manufacturers, the mobile phone operators and the service providers. They do not have the opinion that the numerous service and content providers constitutes a threat for neither manufacturers nor mobile phone operators, since they consider them to be mutually interdependent. They also refer to them (the three main parties cited above) living in a kind of symbiosis, where nobody can force through a change without the cooperation of the others.

The same notion of symbiosis is also referred to by Company Beta during the course of the interview; even though they appear to be more vigilant to possible future changes concerning this symbiotic relationship between the manufacturers, mobile phone operators and service providers. Here, Beta refers to the fact that their own firm has gone from being a supplier of mobile phones 'only' equipped with an advanced technology to a supplier of more designed telephones; still with an advanced technology, but with a more interactive user interface. The content has hence become more and more important. Thus, the manufacturers has been forced to adapt their way of thinking and put much more efforts into offering the right content in their telephones.

Beta refers to Skype's technology which they consider to be very interesting, since they have created a brand new structure for mobile phones on the market, as well as for the market on the whole.

By transferring this concept to the mobile phone market, this is something that they (Beta) believe will occur more and more. They are convinced that there will be new ways of using the mobile operators' services;

(...) the cell phone industry stands in front of an evolution which involves a different structure concerning the operators role on the market (...) When it comes to features and software, the operators want to decide as much as possible. Considering that the operators only care about their brand, we try not to be too controlled by them.

The representative for Company Beta continues;

I believe that, in the long run, it is possible to exclude much of the operators' involvement. Especially since our own firm today has gone from being so highly technology oriented to be much more customer oriented. Third party suppliers will probably be more involved in this, as well as, probably the smaller firms.

Company Alpha does not seem to share this view of the future evolvement of the mobile industry. They have the opinion that the mobile phone operators are difficult to discard because they stand for mobility as well as an added value.

Alpha considers particularly two things to be in favour of the mobile phone operators;

- (1) the mobility they offer and;
- (2) the sim-card (the authentication of the user).

Alpha considers these two aspects to be very important and necessary for the industry to hold on to, especially when it comes to the authentication of the user. This is because this is where you can build the so-called *billing-relation*, hence the possibility of getting paid from the customer. Alpha has the opinion that this would be rather impossible to accomplish if every content and service provider would try to build a separate billing-relation to the customer, as they do not think that this would be of interest for the customer. Owing to this, Alpha considers the mobile phone operator to be the only party enabling a direct channel to the customer.

However, at the same time Alpha makes a point of mentioning that few mobile phone operators believe that they can provide the customer with all services themselves. This goes back to the symbiotic relationship mentioned above, that there are rather specified roles as to which party on the market does what. According to Alpha;

The mobile phone operators stand for access to the network and the possibilities to use various services. Few operators believe that they can deliver all services themselves.

Christer is of a similar opinion, since he thinks that, a mobile phone operator nowadays should for the most part be considered to be a *billing company*; i.e. it gets paid for providing the network and other services, even though those services often are managed by their content delivery partners. He further explains that the operators should only bother about providing the network and collect payments, since they are not created for the purpose of offering content and other services. Christer does not believe the strategy applied by some operators (for example to host all the music streaming service themselves) to be tenable. Simply because the mobile operators are neither suited nor capable to take care of all those services themselves. He relates this view to his prior experiences from working within those firms. He got the impression that they were too focused on figures to be able to take in other values (i.e. which kind of services the customers were interested in). He states;

Three questions are especially important for the operators: *How much traffic do we have? How do I attract new customers? How do I keep the customers I have got?* Those three questions control the whole telecom industry.

Christer's impression is that mobile phone manufacturers are getting more and more subordinated the mobile phone operators; amongst other things based on the fact that the mobile phone's skin nowadays rather features the operators brand than the manufacturers.

Company Alpha tells us that they have a name for this;

Vanilla is what we call a product that leaves the factory and have the exact same features as it had when it was originally made. However, few products are considered to be *vanillas* but have had some kind of customization made for the part of an operator. For the most part it is about branding and customizing the mobile phones.

Convener suggests that if the industry would change standards from billing per minute to billing per megabyte, it would simplify matters a lot, since they think that the future services and applications of mobile phones will involve more of file transferring than today.

3.3.3 Access to the Market

A critical question for the newly established firm is how to access the market and how to gather a group of loyal clients.

Convener is very aware of the obstacles conditioning the access to the market. This means that personal connections and networking has become key words for Convener to be able to successfully operate on the market. Richard and Marc, the managers at Convener, are examining their private networks with the purpose of finding out if someone they know has some relation to interesting associates, with Convener's business idea in the back of their mind. Richard emphasizes that Convener is mainly interested in negotiating with the upper management as they are the only ones with the adequate decision making right. A risk capital investor could have a positive impact since they would, in an alliance, offer Convener extra strength in the negotiations. On the subject of capital investments Richard says;

In the long run, we estimate that an investment of some kind is crucial if we want to be able to make money on the innovation. (...) It is important to find the right people that believes in the idea and that are prepared to invest money in it.

Another possible strategy would be releasing a freeware version directed towards the target customer, which could generate future revenues. With the above mentioned aspects in mind, critical factors for Convener are thus determined to be *financial investments* and *alliances with critical partners*. Christer Månsson considers the chances of Convener reaching the market as rather high, since they stand for a completely new way of thinking where the customer is in total command. He has, on the other hand, a sceptic attitude towards the current strategy of approaching only huge companies. The telecommunication sector is rigid in its assessment of the potential benefits from an aspiring technology and possesses a great deal of territory thinking and is accordingly rather difficult to access, according Christer.

He believes the best way of accessing the market would be through *building a customer base underground*, i.e. by getting students and other technology interested people used to utilizing the freeware. This would build a customer base which will promote the company brand and attract other actors on the market.

Christer further claims that during the past 7-8 years, the telecommunication and computer industry has begun to converge. However, he considers another prospective strategy for Convener to be to either ally with a company of a similar size within, e.g. the *multimedia industry*; to be able to *present an overall solution* to the potential customer. By the media industry, he refers to the companies providing the customers with the multimedia content in computers and mobile telephones. This industry is noticeable smaller than the telecom industry and therefore allows Convener to undertake action of connecting with partners of a similar size and power.

He further suggests that Convener should try to find mobile phone operators who are heading out of the market and urgently seeking a *boost* and thus interested in getting access to a service that can attract new customers.

Also Company Alpha and Beta have opinions regarding Convener's prospective ways of accessing the market. Beta appears positive to Convener's business idea, though they point out that it is important for Convener to find a partner to start a joint project with. Their proposition is that, if Convener wishes to acquire a large market share fast, they should target a firm that possesses similar resources as Beta. A company of Beta's size possesses the knowledge, the needed tools and the required funds to launch a product rapidly.

Alpha, on the other hand, has a contrary point of view compared to Beta and Christer. The chances of accessing the market for a new firm without any invested capital are rather diminutive, according to Alfa;

This relies on the fact that you can not be sure the idea is that unique. You can never be sure that hundred Indians or Koreans have not come up with the same idea.

Their estimation is that the technique offered by Convener is well covered by the existing technique in networks through IMS.

3.4 Partnerships and Alliances

3.4.1 The Search for Potential Partners

Convener's main interest lies in finding an ally who can provide them with resources they lack. Marc and Richard agree that an acquisition of the company/technology is not of interest to them. On the other hand, Convener's possibilities of staying 'self-governing' in a co-operation project is not very likely according to Company Beta; especially since it often depends on the financial situation of the participant in question.

Beta states that the number of firms being successful in keeping hold of their independence is rather diminutive when participating in collaboration projects. Beta further suggests Convener to try to seek sufficient basic capital before approaching prospective partners to proof that they are capable of carrying a part of the costs.

Yet Beta accentuates the importance of trying to remain independent/self-governing and further proposes;

Have well defined goals to work after and create an organisation where you can build, and more importantly, keep your independence. Try to attract capital investments so that you can create an organisation where it is possible to offer more of a package deal. Choose the members you want to approach carefully, and be prepared with a well evaluated concept where you can say; this is what we have got and this is what we can offer you.

Constantly searching its surroundings for potential partners is necessary for Convener, even though it appears to be a challenging process. The managers at Convener clarify that Convener is mainly interested in partners in the telecommunication sector, at least in the initial phase;

Our technical solution works just as well on computers/desktops but it is not as interesting for us at the moment, the mobile phone has greater possibilities and involves less direct competition. We also feel that we have very good business contacts in this sector.

Furthermore, they accentuate that particularly partners with a large and existing customer base and a way of thinking similar to Convener's would be of interest. This way of thinking involves a focus on the customer needs, and that the partner is willing to relocate a certain amount of power from the mobile phone operator to the customer.

During the quest for finding the right partners, several factors need to be fulfilled for being considered as an appropriate ally. Richard explains that from Convener's point of view, their poten-

tial partner needs to be already in contact with, and furthermore, also have good relations with various content providers. Marc continues;

(...) the strength of Convener at the moment is that the product can be ready for selling rather quickly. The patent is supposed to be registered during the fall and we already have some partners as well as a big mobile phone operator ready to support us. The collaboration partners have to come up with the necessary resources. These resources are crucial for Convener being able to offer high quality to their customers.

The bigger companies seem to possess a more unclear opinion on why and how to pick a partner. Alpha says;

We do not have regular working process to follow when looking for potential partners, such as service providers. It might be that we get in contact with them through personal contacts or that we might bump in to a product that we consider to be interesting.

According to Alpha it is difficult to pinpoint the exact explanation to why Company Alpha chooses one collaboration partner over another. Alpha explains;

Generally you want to launch a product, and you have a number of collaboration partners to choose from. You choose to collaborate with the partner that can improve the products level of experience to the end customer. It is unusual that you have ready made functions that can interact with third party services.

Beta receives a lot of suggestions concerning new technology and business ideas from smaller companies. If they perceive the proposed idea to be of interest, they ask the innovator to transmit a presentation of the new product/idea

When we assess a product or service, we evaluate the technology and the concept first, to see what the pillars are of the technology. Furthermore, we prefer to cooperate on a project basis. In case we discover a promising collaboration partner, the project receives a budget and its own resources and objectives.

Beta further asserts that their policy is to develop the technology they lack in-house. If they are not able to develop the technology in-house, they search the market for the possibility of acquiring the lacking resource. They try to generate as many ideas as possible internally as they encourage their employees to come up with new ideas, e.g. through internal competitions. They also possess a department within the organisation which scans the market constantly for potential profitable markets ideas.

The answer to the intriguing question on how to find potential partners and how to get them interested in future collaboration is, according to Christer, through *networking*; i.e. building a large contact base in the relevant industries. Even though he has a sceptical attitude towards Convener's current strategy of only approaching potential partners in the telecommunication industry (as prior stated), he still thinks that it is especially important to have connections within this very sector. This is mostly because of the possibilities of creating various types of pre-installations of different software solutions in their telephones.

This leads to the next statement made by Convener regarding how to sell the technology.

They think that during the process of contacting bigger companies, e.g. mobile phone operators or manufacturers, it is of utmost importance to be able to refer to mutual contacts and other credible partners. As stated by Richard;

When you contact bigger companies, say mobile phone operators or manufacturers, it is extremely important that you have credible partners and competent people to refer to, this is why we have put so much effort into the finding the right people to our advisory board.

When presenting their technology, the managers at Convener always try to refer to someone the potential partner knows. By this, they hope to increase the chances of faster and easier getting into business discussion regarding their innovation. Convener's idea, as it is presented to the bigger companies, mainly concerns the potential of offering software solutions which can result in an augmented amount of sold telephones;

Our idea, as it is presented to them, mainly concerns the fact that we offer software solutions which can lead to a higher volume of sold telephones, to obtain a higher customer value, or something like that. And we try to 'dazzle' them with the prototype, of course.

3.4.2 Risks Associated with Alliances and Partnerships

Both Alpha and Beta communicates that the intention of a collaboration is to pursue mutual goals within the alliance. Beta speaks of the essence of sharing and sharing the same core values, whereas Alfa highlights ethical criterions, environmental policies and the importance of IPR regulations.

Though, a collaboration is often accompanied by several risks.

Also Convener's managers see the potential risks when collaborating with other firms. Richard and Mark are aware of the fact that Convener's company size is inauspicious, which can lead to a situation where the partner can dictate the conditions for the collaboration, and consequently demand exclusive rights to the technology. In that case, Convener would find itself in a disadvantageous bargaining position.

Alpha states that potential collaboration partners are each separately responsible for their own risk taking. Alpha further believes that it is not a reasonable solution to assign the risk taking to only one of the allies involved. Furthermore, they estimate that the main risk associated with collaborating with smaller companies lays in the smaller companies' lack of the necessary economic muscles that often is required when competing on the market.

Both Alpha and Beta implies that it does not exist a method for fully protecting themselves against failures. You can always fail, but managing these kinds of risks is the only way of advancing on the market. Neither Alpha nor Beta agrees to a shared project if they are not utterly convinced of the business idea's superiority.

Collaborating is thus considered a prized notion by all parties interviewed. However, according to Convener, protecting oneself is of extreme importance in the high-tech market. Each time Convener presents their business concept to a potential new collaborator they expose themselves for an unavoidable risk. This risk could involve that someone would copy their idea simply through changing some variable and basically replicating their innovation.

This is the reason to why getting a patent is critical, according to Convener, even though they try to protect their software through different contracts and partners. According to Marc the risks associated with the presenting of their technology to potential partners are rather significant since the mobile phone operators need to achieve an agreement on compatibility of software, as well as, technology.

The managers at Convener have discovered some interest for their technology from potential partners although they appear rather reluctant to invest in this area. Instead, they tend to invest in different music services, which seems more promising to them.

Regarding this matter, Christer proposes that Convener should arrange meetings with persons employed on the market relations side of the firm and to try to avoid the engineer side of the organisation during the initial negotiation phase. He thinks that it is very important to demonstrate the potential market appraising benefits of the technology to these persons.

3.4.3 Threats Related to the Co-operation with Smaller Firms

When it comes to the service and content providers, Alpha thinks that to be able to unite the three sides (i.e. the operators, manufacturers and content providers) it is important to consign to different kinds of *open standards*. Thus, the companies developing services have to ensure that their products/systems are compatible with the mobile phones and other units. This opinion is supported by Convener as Marc has stated that he thinks that, for Convener to be able to reach to market, it is all about timing and compatibility with other kinds of technology. Additionally, according to Marc, it is crucial for Convener being able to create a feeling of trust and confidence that you can transfer to other potential partners.

As mentioned earlier, Alpha do not feel threatened by the fact there are a lot of small companies with rather convincing technologies on the verge of entering the market today that might interfere with the traditional and strong relationships between manufacturers and mobile phone operators.

When asked about the possibility of emerging firms redefining the roles on the market, Beta has a less strict attitude. They think that it is always important to take new technology seriously, whether you see it as a threat or not is another question. They also have the opinion that cooperation with smaller firms offers several advantages, since smaller firms often are more innovative and not so rigid in their thinking.

Beta also recognises that ignoring or underestimating small innovative firms would constitute several risks, as for example the risk of not discovering an emergent technology – and thus disregarding possible first mover advantages – and consequently miss out on possible competitive advantages. Also Alpha believes that certain advantages can be secured by the means of cooperating with smaller innovative companies;

You can cooperate with the smaller firms through the standardisation institutions; you can for example push through a technology or protocol that can not be solved in a similar way today.

3.4.4 The Question of Complementary Resources

Convener's key strength regarding their technology is its versatility, according to Richard. By this he refers to its capacity to integrate with various other services and technologies, the less costly infrastructure needed to implement the technology, as well as, the simplicity and the user friend-

liness. They also believe that all of these features give proof of comparative advantages compared to their competitors. Marc points out that the unique part of their concept is the fact that individuals do not have to be dependent on anyone if they do not wish to. It is possible to transform a mobile phone into a server, and thus connect people to each other without the interference of an operator.

Those opinions are supported by Christer. According to him, their technology is groundbreaking since it is so largely opposed to the ‘traditional’ approach of network building in the telecom industry. Christer says;

It is groundbreaking since it is so opposed to the ‘traditional’ approach of network building in the telecom industry. It is built upon the idea that the customer is not dependent upon various intermediaries but can interact directly, without the forced relations with the mobile operator.

According to Richard, Convener does not only possess a superb technology but also a high level of credibility. By this he refers to the careful selection of people to take part of the advisory board. The recruitment process is very important to them, since they are convinced that their competitiveness depends on the right people being involved in the company;

Of course we value things like a high ambition level, a high working capacity, being able to catch up fast with new information et cetera, but we also put great importance to the potential employee’s personality and that they are ‘international’, so to say, in their way of thinking. Our business idea incorporates a special mind set; we are highly motivated and willing to put all our efforts into this project, and we expect the same from our co-workers.

Christer agrees on the fact that Convener’s strengths, besides the technology, lies in their technical and market competence, as well as a firm conviction in their technology. Convener’s belief in their technology is deemed to be important for their advancement on the market.

Even though being considered unique by Christer, Convener is still dependent on critical resources possessed by other companies to be able to enter the market. Richard specifies the critical resources they do not possess at the moment as *distribution channels, heavy marketing possibilities, expertise in price setting and possibilities to engage in any kind of potential customer research program*. It all comes down to exposing Convener’s brand to the customers, through various marketing and distribution channels. Marc considers the critical resources to be provided by potential partners as a willingness to integrate their technology with Convener’s, as well as a shared strategic approach regarding the customer being in focus. Technical competence and of course mutual trust is also judged to be fundamental by Convener.

Alpha thinks that it is obvious why Convener might want to approach them with a proposal since they are one of the world’s largest suppliers of mobile phones. Alpha also participates in several collaboration projects aimed at connecting content providers, operators and the manufacturers. Based on this, Alpha believes that Convener is looking for support for their applications in Alpha’s mobile phones. However, they do underline that this is merely possible through being a part of a standard. A possible future collaboration does not have to be totally excluded but the fundamental prerequisite is that Convener adopts the standard.

Critical resources for Beta when allying with a partner for a project are, of course, primarily the perceived value of the new technology. Secondly important is that they share the same core values. Further, another important aspect is the exclusivity. Beta is not interested in investing bil-

lions in a project someone else can easily access. Naturally, company Beta needs to inspect the other firm's resources and capabilities, such as IPR possessions, before agreeing on a collaboration.

3.5 The Emerging Standard: IMS

The opinions as to whether IMS already should be considered a standard are dispersed amongst the interviewees.

Even amongst the managers at Conveneer, there are some differences of opinion concerning the eventuality of IMS being a standard. Richard has the opinion that IMS already, in some way at least, can be seen as a standard. This because most of the big actors in the market already are involved in the development of the technology. On the other hand, he does not think that IMS should be considered as one single standard, but as several. This does not mean, however, that the entrance is closed for other alternatives. Richard ensures;

It is my strong belief that there will be plenty of room for hybrids connected to the IMS standards to evolve, although there may be some difficulties involved in integrating them. But we do not consider this to be an obstacle for a small company like Conveneer to take part in the evolution.

The other manager at Conveneer is of a similar opinion but is not as convinced about the fact that IMS already should be seen as a standard. Nevertheless, he is strongly convinced that an alternation of generations is in process regarding the old technology and that IMS probably will become a standard. According to Marc, the problem with IMS is that it is too complicated and aims at accessing the market too quickly, which, according to his assumptions, will leave room for companies like Conveneer and Skype to co-exist.

Conveneer do not think that the mobile phone operators has a clear interest of knowing how the services they offer are produced, and this is why they think that there is a possibility for them to come in as a service provider, and possibly also as an alternative to IMS.

IMS only offers some alternatives, and do not provide the customer with enough freedom. The customer will, for example, only be able to surf on the sights provided by the operator. This is only possible since the customer do not know what they want or need, in this context, and the operator is thus left with a lot of freedom when constructing such a network.

Alpha is not as convinced that the technology offered by Conveneer could offer some added value as opposed to IMS. The proposed expense savings with Conveneer's technology compared to IMS is not clear, according to Alpha, as well as the potential amelioration of user value that Conveneer claims to offer. All together, they think it is difficult to discuss any comparisons with IMS since it is yet to be released, but they are clear about the fact that if Conveneer is going to be able to compete at all, they have to be compatible with *the emerging standard IMS*.

Alpha is very specific about the imperative of adapting to the standard. This is further emphasized by the fact that only ten percent of their mobile units are so called *Smart phones* (with an open operating system; Symbian OS). Smart phones are the only type of mobile unit that could support a technology that is not standardised. The second type of mobile units often has built in applications, and in that case it is almost impossible for a third party not following the standard to join in.

As the representative for Alpha tells us “No manufacturer wants to implement a support for a function that only one deliverer can offer”, i.e. others have to be in it as well, if its going to be interesting.

According to Alpha, IMS is standardized and thus more motivating for them. This is underlined by Alpha’s conviction that not following an existing standard on the market would be foolishly.

4. Theory

In this chapter the theoretical framework will be accounted for. The theory chapter is constituted of parts from Porter's Five Forces Framework, the Resource-based view, the Network Theory and is wound up with Network Externalities and Technological Standards principles. The different theories are later combined into one theoretical framework, designed to serve the paper with an analytical toolset.

4.1 Entering the Market

Organizations need to adapt the rhythm of a turbulent environment, as it can not take its external environment for granted to the same extent as it could before. Particularly, the development of revolutionary and innovative technology products denotes new challenges for companies, as mentioned in the introduction chapter. This new area of competitiveness attaches more of an importance to loose organizations' structures and the ability of being flexible. Companies are exposed to novel and previous unknown factors and are as a result assigned to restructuring its organisation to become, as well as, to be able to remain innovative (Nygaard et al 2002). However, not all innovative ideas become successful new products. To succeed with an innovation several conditions have to be met, the innovation has to be aligned with the firm's resources and objectives, as well as aligned with the core competences and the strategic intent of the firm.

One part of Porter's Five Forces model (Grant, 2005) is judged to be especially important for businesses not yet possessing a respectable market position. Porter's *Barriers to Entry* (from the Five Forces model) provides us with an appropriate overview of the targeted industry. The barriers to entry are defined by the type of industry and are thus different for each firm aiming at entering an industry.

Industries characterized by a high extent of economies of scale can constitute a hindrance for new entrants since they only have two options to choose from; of which both are related to elevated costs. Either they invest plenty to achieve the same levels of economies of scale as the competitors, or they invest less and accept the higher costs this gives rise to.

Some industries are also characterized by the fact that the first entrants to the market hold absolute cost advantages compared to new entrants. High-tech markets are often related to high costs for the development of innovative products, as well as IPR-associated costs (abbreviation for Intellectual Property Rights).

Those markets where the end consumer needs to accept high switching costs might also be difficult to access, as the entering firm often is required to carry some of these costs if it has the intention to increase the number of end consumers.

In addition, newly established firms might be burdened by the lack of experience and routines, which in turn can lead to ancillary costs. Capital requirements can constitute another problem. Some industries have imposed high capital requirements to entering firms trying to establish themselves, with the intention to discourage other than large companies to enter the market.

Finally, one more critical aspect is how to reach the end market and thus the end-consumers; this is indeed a motive for stressing the importance of building reliable distribution channels.

Additionally, a company has to have an in-depth understanding of the innovation dynamics; a well crafted strategy, as well as a designed process for implementing the innovation.

If a company does not possess those resources it should explore its surroundings and find an appropriate ally who can fulfil these requirements. Grant (2005) defines a firm's resources as the productive assets and the capabilities it possesses.

“Ultimately it exists several ways for a firm to fill the gap that can arise between the firm’s own resources and capabilities and what is required to successfully operate in the market. One way to fill this gap in resources and capabilities could be through strategic alliances” (Grant, 2005).

4.2 The Resource Based View

By examining the resources a company possesses, it is possible to discover which resources the company actually lacks. An ample awareness of ones gaps and possibilities, can thus facilitate the forming of a solid business ground to proceed from.

According to Barney (1991) the resource-based view is based on two assumptions;

1. Resources and capabilities may be heterogeneously distributed across competing firms (i.e. *resource heterogeneity*).
2. These resources and capability differences can be stable over time (i.e. *resource immobility*).

He has defined the firm’s resources and capabilities as all of the financial, physical, human and organizational assets used by the firm to develop, manufacture, and deliver products or services to its customers. Based on these two assumptions, Barney (1996) has prepared a resource-based framework that can be used to evaluate the firm’s resources and capabilities and consequently the possibilities for the firm to obtain sustainable competitive advantages.

- Are a firm’s resources and capabilities able to respond to environmental opportunities and/or threats? (The question of *Value*)
- How many competing firms already possess these valuable resources and capabilities? (The question of *Rareness*)
- Do firms without resources or capabilities face a cost disadvantage in obtaining it compared to firms that already possess them? (The question of *Imitability*)
- Is a firm organized to support and exploit its valuable, rare, and costly to imitate resources and capabilities? (The question of *Organization*)

These questions constitute the *VRIO framework* and can be used to evaluate any resource and capability according to Barney (1996). The crucial point in this framework is to take in as many as possible of these criterions to obtain sustainable comparative advantages.

Conversely, to a lesser extent one is able to accomplish these criterions, the chance decreases to obtain winning advantages in comparison with the rivals.

According to the same author there is two ways of imitating resources, either through *duplication* or through *substitution*. Duplication denotes the imitation of resources and capabilities and substitution implies the substitution of some resources for other resources. He has also grouped the reasons behind why resources and capabilities may be costly to imitate into three major categories:

- The importance of history in creating firm resources and capabilities
- The importance of numerous small decisions
- The importance of socially complex resources

These categories thus affect the possibilities of others being able to imitate the firm's resources. Das et al. (2005) have brought forward the possibility that a company can optimize the firm's existing resources by combining them with other firms' resources. In other words, the rationale for entering alliances in this context would be the value-creation potential of firm resources that are pooled together. That is to say if the realized value of those resources contributed to the alliance is higher than the value realized either by selling or by utilizing the resources internally.

According to Das et al. (2005), firm resources are important indicators of the likelihood of firms entering strategic alliances. This argument is based on the assumption that the more imperfect the mobility, imitability, and substitutability of a firm's resources, the more likely it is that other firms will be interested in forming alliances with it.

Based on the framework provided by Barney (1991, 1996) and Das et al. (2000) one is supposed to be able to identify the critical resources and capabilities possessed by each prospective partner firm. This would also allow the researcher to assess the potential of finding partner firms interested in forming strategic alliances and possibly also the odds for a successful partnership.

4.2.1 The Network Theory related to the Resource Based View

The important notions from the Barney (1996) framework are the assertions that *a firm's resources and capabilities are fundamental for its possibilities to obtain sustainable comparative advantages and the imperative to organize its resources effectively to be able to fully benefit from them*. In case a firm lacks critical resources it could be able to acquire them through the belonging to a network.

Gulati (1999) has discussed the possibility that firms may enter an alliance with a particular firm based on the fact that it already shares a number of partners in common. He has accentuated the detail that the firm's relations imply a certain informational advantage compared to its competitors and thus could be referred to as a *network resource*. Supported by the resource-based view, Gulati (1999) has come to the conclusion that the firm's network of relationships *could be the source of a sustainable competitive advantage* since they often are heterogeneously disbursed within an industry and often are influenced by historical measures taken by the firm.

This is further developed in his discourse where he clarifies that "a network of embedded ties accumulated over time can become the basis of a rich information exchange network that enables firms to learn about new alliance opportunities with reliable partners".

Gulati et al. (2000) has identified several sources of competitive advantages related to the firm's network resources, amongst them;

- *the network structure as a resource*; meaning that the structural pattern of a firm's relationships is unique and has the potential to provide the firm with a competitive advantage.

- *network membership as a resource*; implying that non-participants of the network may be locked-out of new opportunities since they do not have the contacts required to successfully compete in the market. This way of thinking implies that a resource-rich partner with the right capabilities has the potential to provide a focal firm with an inimitable source of valuable resources and capabilities, not accessible for non-participants of the particular network.

- *Tie modality as a resource*; thereby assuming that the strength and the nature of the firm's ties with its network partners could be valuable and difficult to imitate for its competitors.

The crucial point needed to be understood here is that *the possibility that a firm's belonging to a network means equally having access to beneficial resources provided by the network*.

These criteria are crucial to be able to obtain a valuable market position. Hence, according to the above cited theory, a firm can benefit from an ambition of creating a value network.

4.3 Foundations of the Network Theory

4.3.1 Creating a Network

The Network Theory - supported by the Resource Based View – suggests that one could gain competitive momentum from not underestimating the benefits of partner networks. This is explained by the means of networks defined as valuable resources and thus playing an important role when trying to create sustainable competitive advantages.

The notion of *networking* involves the organization of those valuable resources which are seen to be elementary for the execution of flourishing business ideas. Being a participant in one of several networks is getting more and more important. Hence, a firm which is not yet a member in a network needs to gain access to one (Chakravorti 2004).

Nygaard et al. (2002) explains that private network describes the individual's relations to each other, whereas the business network describes the relation between businesses. Further he claims that the business network is founded upon private networks, as the company only provides "nothing else than the name on the facade".

According to Landström (2005), designing a network indicates a gradual synchronisation and consolidation of the entrepreneur's social network. This in turn, is regarded as a process of establishing the business. The process of connecting with others in the network is proposed by first targeting the family members and then extending to targeting externals. Consequently, those relations become gradually professional. While implementing innovative business ideas one's network often functions as a supportive factor for refining the business plan.

Also the cultural aspect of building relationship should be considered. As Landström (2005) states, it exists in Scandinavia a particular interest regarding the notion of networking. This bears reference to the nature of the Nordic society, which;

- (a) narrowly coalesces entrepreneurship and society and thus build the foundation for social relations;
- (b) generally possesses a traditional volition to cooperate;
- (c) does not contain great distinctions between the different Scandinavian countries, which implies that they are basically homogenous.

Historically, the Nordic nations have been associated with the notion of networking, simply because of its traditionally co-operative culture.

Further, according to Landström (2005), a network is referred to as an entrepreneurial process of organizing the essential resources for exploiting one's business idea. Evidently, it is crucial to first establish a relation to a network group. Seen from the Landström's network perspective (2005) for minor businesses, *relations are established in three phases*;

- **Phase 1:** Concentrating on important dyad relations.
- **Phase 2:** Translation of these dyadic links to socioeconomic exchanges
- **Phase 3:** Expansions of those links to a multiple exchange between parties.

The introduction phase focuses on the exploitation of private relations, such as family and friends, and business correlated relations such as work colleagues et cetera. Those relations can form significant resources regarding the company's ambition to consolidate its position. Gradually, a number of dyadic relations get sculptured, providing the company with resources needed to establish the business idea.

Phase 2 emphasises the transition from social to business relations, whereas it alleges a mergence between these two, e.g. when friends becomes investors. By this, the relation goes from being one-dimensional to two-dimensional. This transforms the network structure to a stronger organizational form.

The third and final phase explains the expanded dimension of those relations, which can arise through several ways, e.g. the bank not only being an advisor but also accepts the role as creditor. Hence, a personal relation converts to an expanded business relation, which is fundamental for structuring a company's organizational stability and consequently brings it a step further towards the completed establishment (Landström, 2005).

During the process of creating the network, several central elements need to be reflected upon when trying to accomplish a well structured network group to be able to extract beneficial aspects from it.

Landström (2005) stresses the importance of *centrality* in a network. Centrality is a powerful notion when it comes to networking and it addresses the correlation of gaining power in a relation. *Focusing on a few central actors in a network allows the organization to increase its power intensity*. According to the same author, it is important to be a participant in a social network which features short and tight communication possibilities to the central actors.

Furthermore, it is essential to initiate a network with few overlapping relations (Nygaard et al., 2002); by this referring to a number of autonomous relations to different partners, which in turn are not previously interconnected. Nygaard (2002) visualises those kinds of relationship as a fan, called *the Overlapping Network Fan*, where the overlapping relations in a network gets displayed.

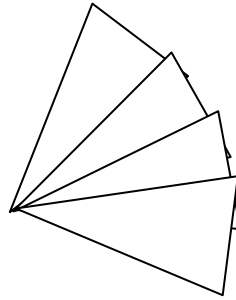


Figure 1 The overlapping network fan
Source: Nygaard et al., 2002

This can be related to the essence of the study performed by Gulati (1999); when contemplating an alliance with a specific firm; one should not only be influenced by the potential partner's capabilities but also the *potential partners' location in the network*. Hence, one should aim at establishing alliances with central firms in the desired network structure that enables the development of further alliances.

4.3.2 Theoretical Networking Cogitations

So far, the importance of creating and belonging to a network has been highlighted to obtain a fundamental and secured business status on the market. However, it is important to stress the fact that simply relying on its network for an innovation to succeed is not enough.

A number of notions have been prepared by Chakravorti (2004) aimed at explaining that *an innovation has to overcome two fundamental barriers to progress in the market* and to create a new status quo;

- 1) Induce a change in the mutually reinforcing choices being made by the network participants in the status quo.
- 2) Recreate mutually supporting and consistent set of choices across the network that favours widespread adoption.

To further explain Chakravorti's statement one can say that the more difficult it is to assume modifications made by one or several participants, the more members it has and the more interconnected it is. Meaning that the switching costs for a single participant connected to the adaptation to those changes in the network are higher the more interconnected the network is.

This is simply grounded on the fact that the more one's strategic business partners are networking with others, the more problematic it is to navigate the adoption network.

This declaration made by Chakravorti poses a paradoxical phenomenon, since it is claimed the more interconnected the network is, the easier it should be to diffuse an innovation, but it still needs to confront the above mentioned barriers.

However, the impact of an innovation is still to a certain degree dependent on its collaborators. No matter how promising the new technology might be, the right connections in a network are the determining factors for its achievements on the market. The increase in efficient communication and new technologies, and the fact that market participants expect to get information from multiple sources makes the belonging to a network significant even for the most ingenious inno-

vation. The decisions made based on this information, will affect others and their decisions which in turn will affect others and a chain reaction is created. The risk of failure if not belonging to a network is notable.

4.3.3 Prearrangements of Strategic Business Relationships

It is important to recall that a network has no value without credibility and trust between its members. Networking is about gradually absorbing the process of mutual matching of businesses products, by exchanging experiences and reducing or eliminating uncertainty.

Sharing information leads logically to a more open atmosphere, at the same time as it represents a commitment, which furthermore in a spiral way generates an augmented level of trust. This is perceived to be an important platform when forming business relationship with the intention of achieving mutual goals or creating new values. (Zineldin, 2002).

The social networks provide a growing company ascending legitimacy and as well supports and strengthens its confidence. Moreover, networking - in form of social and business related cooperation - accelerates at the same pace as the innovative firm refines and consolidates its organization form. An explanation for this is the firm's rising self-esteem during this process of connecting with new business partners, at the same time as the entrepreneur gains business experiences. At the same time the entrepreneur acquires a higher acceptance and in turn becomes more interested in external relations and in the development of more strategic business relationships (Landström, 2005).

4.4 Strategic Business Relationships

Earning trust and legitimacy are vital sources for the creation of a solid ground to support the business idea. This supposedly increases the possibilities for the firm to reach a prosperous market position. As companies are exposed to a more competitive environment they are forced to cooperation to compete - this is also known as *co-opetition* - something that is developing into a brand new market concept (Zineldin 2002). An essential perspective is that strategic cooperation aims at achieving enhanced customer and business satisfaction.

Rese (2006) discusses the intentions of forming partnerships to achieve competitiveness compared to its rivals on the market. *Firms who are included in any form of strategic partnerships are a part of a value creating network.* It is also further argued by Zineldin (2002) that *a company should collaborate through strategic networks as long as the total cost of this operation is inferior to the cost of the implementation of this collaboration.* Expressed in a different way, the partners involved in the network should draw near a situation where nobody risks the hazard of failing.

When entering a partnership, several factors have to be considered. When a firm is a part of a partnership, which is seen as a governance mechanism, it is differentiated from other forms of coordination regarding the degree of specific investments. Rese (2006) continues by pointing out that it is important to find collaboration partners that are able to offer substantial advantages.

It is important to take into consideration under which circumstances the partnership was initiated and on what basis it was founded. To avoid situations where one part feels dissatisfied is it a precondition that no one comes out worse off by entering the partnership. This is related to the fact

that the reason for entering a strategic business relation is the ability to create win-win effects for the partners involved and to strengthen its competitiveness (Rese 2006).

When joining strategic alliances with the intention to achieve competitive advantages, it is also important to be aware of the possible risks associated with the partnership. One of the controversial issues is the *perceived control intensity* by one of the firms. When two firms start cooperating they have to start taking mutual decisions. The success of the project depends on the effort undertaken by both participants. Another potential risk is the *loss of trade secrets*.

Mohr et al. (2005) exemplifies the uncovering of trade secrets as the riskiest aspect of an alliance/partnership. *The potential risks involved with partnerships are further listed in Figure 1.*

However, it is equally important to distinguish the prerequisites of a successful partnership. First of all is it important that both parties rely on each other. It has to be a give-and-take relationship based on equal motivations, as an unbalanced interdependency can create a bigger vulnerability in one firm. On the contrary, a looser structure of interdependence might cause a lack of mutual commitment. Mohr et al. (2005) mention the bothersome course of finding an equal balance of dependency when small firms enter a partnership with larger ones. In such a situation the risk appears greater and therefore should be paid special attention. It is recommended, that the *governance structure – meaning the terms, conditions, systems and processes used to manage the interactions between two companies - should be adapted to the level of risks involved in the partnership.*

<u>Reasons to partner</u>	<u>Risk to partnering</u>	<u>Success factors</u>
Access resources and skills	Loss of autonomy and control	Interdependence
Gain cost efficiencies	Loss of trade secrets	Appropriate governance structure
Speed time to market	Legal issues and antitrust concerns	Commitment
Access new markets	Failure to achieve objectives	Trust
Define industry standards		Communication
Develop innovations and new products		Compatible corporate cultures
Develop complementary products		Integrative conflict resolution
Gain market clout		

Table 1: Reasons to enter partnership

Source: Mohr et al, 2005

Hence, being aware of potential risks is crucial. In order to access the market, there are several forms of partnerships to choose from, as discussed by Mohr et al. (2005).

Vertical partnerships concern the cooperation with other members of the supply chain (suppliers, distribution channel members or customers). This kind of relationship is often formed with the purpose of reaching a higher level of effectiveness throughout the supply chain which is more fitted to the needs of customers, and to access downstream markets.

Horizontal partnerships are formed either with competing firms or with firms of complementary resources. By joining a partnership with a competing firm one can help each other to gain market access otherwise unattainable, or one can cooperate with the clear purpose of setting a new standard for a new technology and/or be stronger against a mutual competitor.

The complementary partnership is defined by the cooperation of two or more firms joined together to offer complete and integrated solutions, e.g. when Hewlett Packard and Kodak together pursued the digital market.

In conclusion, a company who has yet to create a direct link to its target group can possibly gain access to it through a partner who already has built a loyal and stable customer base. In doing so, the company has to be aware of risks and prerequisites for success associated with the partnership.

4.5 Network Externalities and Standards

According to Mohr et al. (2005), the value of a product increases and decreases with the number of people using it. The classic example is physical networks, e.g. a telephone connection is not very useful if only few people use it. This phenomenon is referred to as *network externalities*. Network externalities *can only appear on markets where a product's compatibility to another is important*, e.g. choosing a computer based on the number of others users of the platform, rather than based on the technological benefits perceived from it.

The effects of network externalities are becoming more and more relevant; this can be exemplified through the competitive advantage that Windows attained when IBM decided to install the Windows operating system on their computers. Since IBM already used other software programs by Microsoft, this offered a possibility to lock numerous other players out of the market, such as Geoworks and Next.

Network externalities enjoy the benefits of enhanced competitive advantages based on the increasing popularity. This often results in a vigorous growth which denotes not only economies of scale on the supplier side but also on the demand side. This is why some firms offer their products for free in order to fast build up a base of loyal users which will make their product more attractive (Shapiro 1999).

Network externalities pursues to cross the dominating design on its target market and to set a new standard. A new standard arises because many technologies experience a greater value as the number of users increases.

New technology > network externalities > standard

Once a technology is accepted by more users several effects will arise; a technology which gets accepted as a standard will get exposed to new technical improvements and further applications. Moreover, the more common the usage of a technology becomes, the greater becomes the knowledge about it and which in turn facilitates the comprehension of its applications. This is often referred to as the *learning effect* (Schilling, 1999), meaning that while the users repeats the process of using the new technology they often find new ways of using it more effectively which often results in new improved technological solutions.

Standards are important since new technologies are often not compatible with each other and render the diffusion of the technology more difficult. Applying the idea of network externalities together with standards, the first company that will have its technology widely adopted by a majority of the users, can consequently proclaim itself being the one setting the technological standard. On the contrary, an open technology helps competitors to develop compatible alternative technologies in order to occupy a part of the market. This is the reason why it is so important to get the technology widely accepted as soon as possible, since "the more successful a firm is in getting its technology accepted as a standard, the more successful will it become in the future" (Mohr et. Al 2005).

According to Hill (1997) and Shapiro (1999), the quest for setting a new standard is about reaching a critical number of users. This also includes the customers' expectations as a relevant factor.

Referred to as *expectations management*, it is considered to be crucial to practise an outstanding management of those expectations, even though it of course is the consumer who in the end decides whether to accept the new technology or not. A new technology that is expected to become a standard will then become it as well, as a sort of self-fulfilling expectation.

Hill (1997) further develops this as a standard needs to have a least one valuable resource, a potential standard technology and in addition to the critical resource, possess other resources e.g. distribution channels, patents and a brand name. He believes there are two criteria which have to be developed when establishing standards; number of users and product compatibility.

One strategy when a firm wants to set a standard is to cooperate with another firm when releasing a new technology. In this way do they signal to other members in the market that this technology will be a standard in the future (Hill 1997).

These self-fulfilling expectations are a manifestation of *positive-feedback economics effects*. The information technology is driven by *economics of networks* (compare this to the former industrial economy that were driven by economies of scale) where the key concept in economies of networks is positive feedback. The essence of positive feedback is that success leads to more success and failure leads to failure. Per contra, the “backside” of positive feedback - negative feedback – is defined as where success leads to failure and failure leads to success. When more than one firm competes on the market, only one can pronounce itself the winner. Shapiro’s explanation (1999) for this is that new users will select the firm they believe has - or will have - more users connected to its network.

Consequently, networking companies attempt to convince consumers that their product will be the ultimate standard, while at the same time struggling to eject competitors from the market.

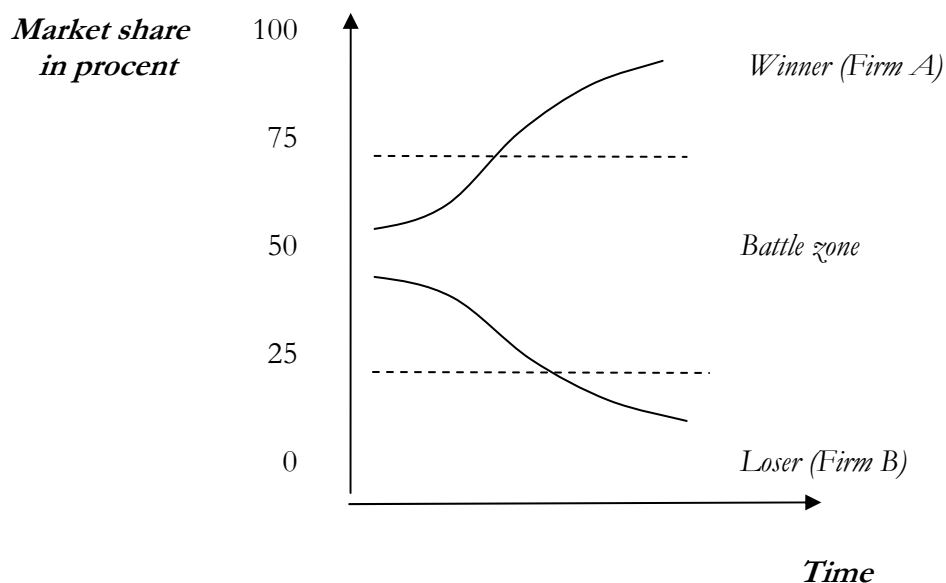


Figure 2: Positive feedback

Source: Shapiro, 1999

Figure 2 illustrates a market with a strong feedback effect. Firm A and firm B possess 60 % respectively 40 % of the market shares. The curve shows that B will lose its market share in the long run to A, who then will take over the market

4.6 The Analytical Framework

The analytical framework used throughout this paper is visually illustrated below;

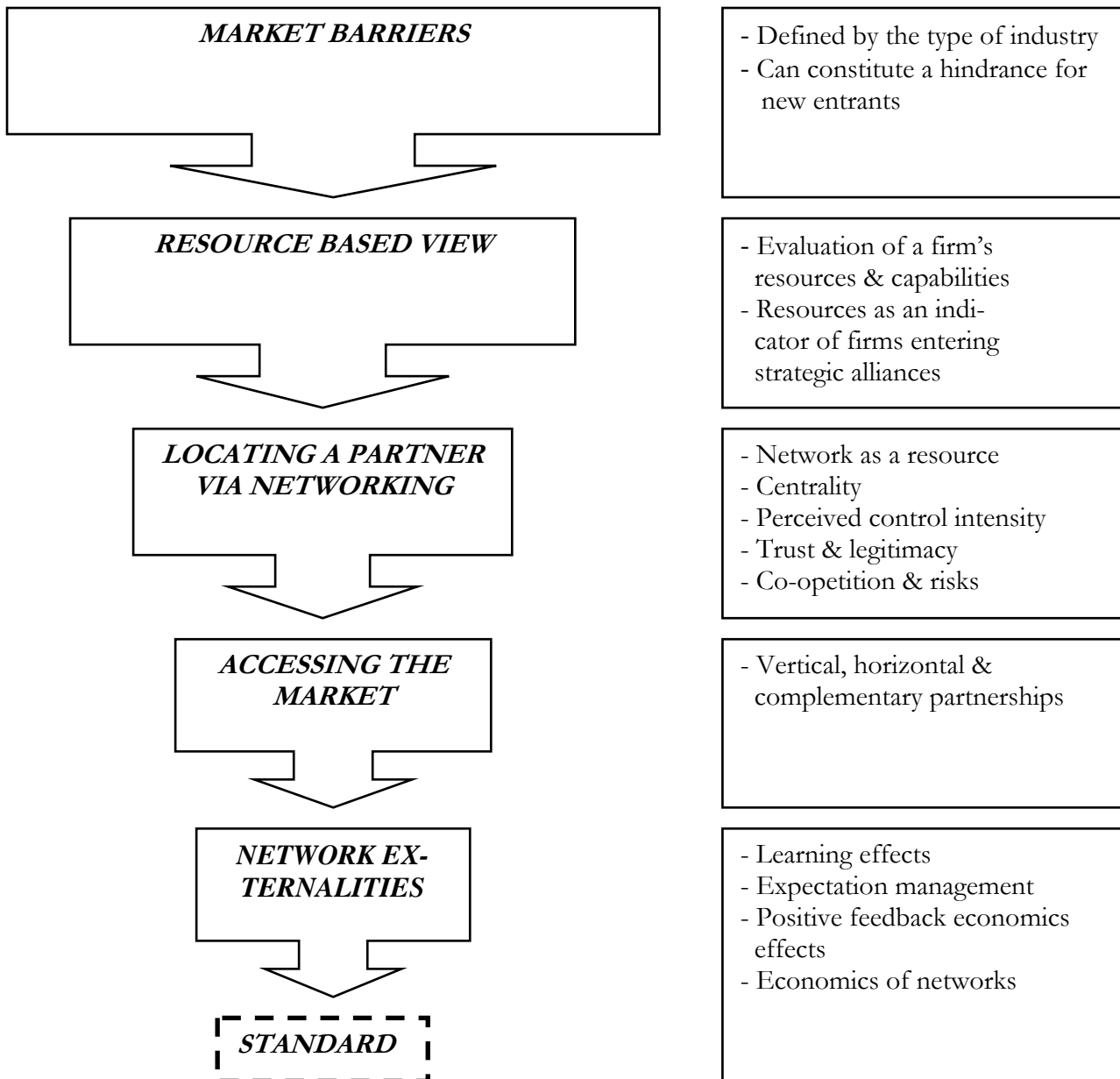


Figure 3 The Analytical Framework

The analytical framework in Figure 3 commence with the exposing of possible barriers in a company's environment, which are slowing down the process of launching a new product or establishing a business in the specific industry. This part of the familiar Porter's Five Forces framework serves as a base for the further analysis of potential shortages in valuable resources and the potential of acquiring these resources from its surroundings.

Supported by the resource based view, networks are considered to be potentially competitive and sustainable resources. By choosing the "right" partner in a network, a firm is able to gain access to the market for presenting a new technology or product to its target group.

At this point, it is expected that the amount of existing users augments as more and more people adopt the product, also known as network externalities. The possible expansion of the new technology is about breaking the dominating design on the market in order to be able to set a new standard.

5. Analysis

This chapter unites the theoretical and empirical sections of this thesis. The concluding results of this analysis will be presented in the next chapter.

5.1 From Innovative Idea to Successful Product – a Clear Path?

How come not all innovative ideas become successful new products?

One reason might be that the innovative idea never reaches the market, because of diverse barriers to entry that have been stipulated by the existing actors in the industry.

Relating this concept to the telecommunication industry, several barriers to entry can be identified; the difficulty of accessing distribution channels directly to the customer, the switching costs related to the adopting of a new technology (if it is not compatible with the existing one), as well as the capital requirements in terms of IPR costs for example. The difficulty of accessing distribution channels directly to the customer is mainly related to the fact that it is more or less merely the mobile phone operator that has a relation to the end customer.

These entering barriers impose a lot of restraints on the small company without the necessary resources. Hence it is often obliged to resort to different kinds of strategic alliances to be able to access the market and this is also the assumption made in our analysis.

After have read the different interviewees interpretation of the situation, a more or less unanimous view has emerged regarding the prerequisites for being able to compete in the telecommunication industry.

Christer Månsson, consulted in the empirical section on the basis of his experiences from the telecom sector, underlined the fact that no corporation can dominate the telecom industry as some companies have been able to do in the computer industry. The telecommunication industry does not hold such a dominant actor as Microsoft or IBM that more or less single-handedly can set the technological standard and force everyone else to adjustments. His explanation to this is that the telecommunication industry since the very beginning has been characterized by the need of cooperation.

Cooperating in forms of converging the different national telecom standards originally founded by the governments and other regulation counsels, a cooperation that became necessary when the globalising started to take place and people wished being able to communicate over the borders.

He claims that this urge for cooperation still should be considered as prevailing in the industry. This assumption is highly supported by the fact that both consulted OEM manufacturers, during the course of the interviews, talk in terms of the main actors in the supply chain *living in a kind of symbiosis*. This notion of symbiosis implies that nobody can force through a change without the cooperation of the others.

Hence, it becomes obvious that Convener needs to cooperate with other actors if they wish to gain access to the market. The terms of standards, networks and connections are mentioned repeatedly throughout the interviews, something that suggests that it is *not a recommended strategy to try to go it alone in this type of industry*.

At the same time as the market is characterized by the need of cooperation, it can furthermore be distinguished by a certain rigidity in terms of *who does what and when*. This applies particularly to the mobile phone operators, according to Christer. He describes this as a widely accepted imagination of them *owning the customer* and thus being the only ones that can have a direct connection to the end customer. Some opinions, on the other hand, presented by Company Beta could indicate

the possibility of this conception slowly starting to loosen up amongst, at least, some of the actors;

(...) the cell phone industry stands in front of an evolution which involves a different structure concerning the operators role on the market (...) I believe that, in the long run, it is possible to exclude much of the operators involvement (...) Third party suppliers will probably be more involved in this, as well as, probably the smaller firms.

5.2 Applying the Resource Based View

Based on the resource based view and more explicitly the VRIO framework, one is supposed to be able to evaluate if a specific resource or capability might give rise to sustained competitive advantages. Even though it might appear like some kind of transfusion of the roles of the market could be in progress, it does not appear to be too far-fetched to apply resource based thinking to this situation.

5.2.1 Identifying the Resources

During the course of the interviews several resources has been identified by the interviewees as critical to possess in order to be able to compete in the telecommunications industry.

At least Company Alpha seems sure of the fact that the operators possesses some kind of a resource that is difficult for the other actors on the market to personally access. They believe that the mobile phone operators would be difficult to discard because of their ability to bill the customer, hence put in other words, their direct connection to the customer. Furthermore, they do not believe this direct channel to the customer to be transferable versus other companies in the industry. This because they think that this would appear too complicated to the customer and as a consequence would not be of interest to them. Company Alpha shows proof of a belief that at least some resources and capabilities may be heterogeneously distributed across competing firms (i.e. *resource heterogeneity*) and that these resources and capability differences can be stable over time (i.e. *resource immobility*).

Consequently, assuming that one considers **the direct channel to the customer** to be a resource or a capability; one could presumably apply the VRIO framework to make some kind of assumption if a resource or capability could be considered to be of critical matter for a company to have access to.

Another, although yet lacking, critical resource identified by the managers at Convener during the course of the interview was **funds or invested capital**. This because they think that a capital investment would have a positive impact on the attractiveness to potential partners, as well as providing Convener with extra strength in negotiations with possible partners.

Both Alpha and Beta agree that an advantageous strategy for Convener would be to try to attract some kind of investor. That investor should be interested in putting enough economic capital into the company so that Convener can offer more of a package deal, i.e. a more evaluated concept, as well as to provide a more profound economic base that allows to bear more economic risk in a potential partnership or alliance. This would definitively increase their attractiveness to potential partners according to Alpha and Beta. Thus, also invested capital can be considered to be an important resource in this industry and accordingly be evaluated through the VRIO framework.

Another important resource identified during the course of the analysis is contacts or **the access to relevant business networks**, since it as prior mentioned, seems to be a prerequisite for being able to compete in this industry. Convener mentions that personal connections and the notion of networking appear to be key words for them to be able to successfully operate on the market. They mention that having connections to the *right people* enables them to talk to other companies and presenting their technology. On the other hand, without the right connections, they consider it to be much more difficult to get the right people to listen to their proposition. This assumption can be supported by Alpha who says that they do not have a clear working process when looking for potential partners, they might get in contact with them through personal contacts or just by chance.

Which resources do then Convener possess and can they be considered to be valuable for other parties in the industry, in fact so valuable that they would be interested in entering an alliance or partnership with Convener?

Convener themselves have identified their most valuable resources to be their **technology** and their **credibility/network of credible and competent** people connected to them. This is also Christer's assessment of Convener's key strengths; their technology and their technical and market competence.

As a summary the following resources has been identified as the critical resources that Convener needs to get access to be able to gain admittance to the market and the resources that they possess at the moment;

External resources	Internal resources
<ul style="list-style-type: none"> ➤ direct channel to the customer ➤ funds or invested capital ➤ access to relevant business networks 	<ul style="list-style-type: none"> ➤ Convener's technology ➤ Convener's credibility/network of credible and competent people

Table 2 External and Internal Resources

5.2.2 Evaluating the Resources

External resources

The direct channel to the customer

The direct channel to the customer has been identified by all interviewees as a critical resource. Only one party in the value chain possesses this resource (i.e. the mobile phone operators), hence it must be considered to be *rare*.

Other parties of the value chain are highly dependent on the proprietor of this resource, since it is the operators that for the most part receive the payments for the services provided by both them and the content/service providers. Also the manufacturers are dependent on the proprietors of this resource as most of their telephones come as part of package deals with a telephone subscription. Even though both Beta and Convener deem it to be highly possible that this relation might be altered in the future, they both do admit that the only ones possessing this resource at the moment are the operators.

The inimitability of this resource can be assigned to Barney's (1996) notion of *the importance of history in creating firm resources and capabilities*, since there is a long tradition of the mobile phone operator being the only one with a direct contact with the customer that stands in the way of

change. The possibility of this resource becoming imitable (e.g. through other parties of the value chain building a direct billing relation to the customer) or substitutable (e.g. through the possibility of changing the operator's role in the value chain) is feasible but the fact remains that, as Christer says, that the operators are solely organized for the purpose of supporting and exploiting this resource. Thus, getting in contact with a proprietor or a network that is connected to the proprietor of this resource is judged to be important to Convener.

Funds or invested capital

Funds or invested capital is vital to be able to build an organisation capable of delivering the technology to the customers, thus the question of value can be taken for granted and the question of rareness does not apply here. However, Convener has the option of either acquiring it through imitation (e.g. getting hold of an external investor) or through duplication (e.g. through the pooling of resources with a company possessing this resource). The notion of 'duplication' of this resource implies that the co-operating company possessing this resource, already is organized in an effective way that is in favour of supporting and exploiting it.

The access to relevant business networks

This resource has been defined by Gulati (1999) as a *network resource* and could be a source of sustained competitive advantage since it is often heterogeneously disbursed within an industry and often are influenced by historical measures taken by the firm. All interviewees have identified this resource as particularly important to have access to in the telecommunication industry, since collaboration is a prerequisite for the development of compatible technology. In this particular case a *membership in the right network* could provide Convener with a head lead compared to non members of the network, since the membership itself could involve technological collaborations with other companies as well as the access to all of the above listed resources.

Internal resources

Convener's technology

The evaluation of Convener's technology through the means of the VRIO framework is a complex matter. The interviewees have expressed conflicting opinions as to whether the technology should be seen as valuable, rare and inimitable. Seen from one perspective (from the view of the managers at Convener, Christer and to a certain degree Company Beta) the technology has great opportunities of being rare and inimitable, as it is considered to represent a brand new way of thinking and has the potential of becoming a disruptive technology.

Company Alpha on the other hand is not so sure about the uniqueness related to Convener's technology as they think that it contains more or less the same features as the emerging standard IMS. This could possibly be influenced by the fact they only were given a limited amount of information regarding the technology. The same goes for Company Beta, thus it is difficult to come to any conclusions regarding this matter.

The question of value when it comes to new technology, as mentioned in the introduction chapter, is often related to the number of users and the notions of *network externalities* and whether or not it can be compatible with or become the standard. Accordingly, it is yet to see as to whether Convener's technology will become a sustained comparative advantage or not as it is dependent on a number of sub factors of which some of them will be discussed further along in the analysis.

Convener's credibility/network of credible and competent people

Convener's credibility in terms of their personal and business network is in this analysis considered to be a valuable resource. This owes to the fact that it has already opened doors for Convener and allowed them to get in contact with customers and partners that they would not have gotten in touch with otherwise, as they have witnessed in the empirical section. It is likely that other companies possess a similar network of people but it is highly unlikely, on the other hand, that another company possesses the exact same resources in forms of personal contacts. This is principally due to *the importance of socially complex resources* as defined by Barney (1996) and should thus be considered to be more costly to imitate for firms not possessing the resource. The essential question for Convener concerns how to organize this resource effectively to be able to withdraw its full value contributing potential.

5.2.3 The Potential of Resource Pooling

The above listed resources are all, more or less, related to each other in a cause and effect manner. It is as a consequence difficult to isolate the different resources since they are valuable because they are related to each other. Hence, Convener's network of credible and competent people would not be valuable without being combined with the technology. In a similar way would capital probably not be of any use if one did not have access to the either a direct channel to the customer or a business network that could offer a channel to the customer.

As stated by Das & Teng (2005) firm resources are important indicators of the likelihood of firms entering into strategic alliances, for the reason that the more imperfect the mobility, imitability, and substitutability of a firm's resources is, the more likely it is that other firms will be interested in forming alliances with it.

To conclude, this section of the analysis has defined as well as evaluated the resources a potential partner should possess as well as the resources that Convener possesses that the partner might be interested in. Assumed that the realized value of those resources contributed to the alliance is higher than the value realized either by selling or by utilizing the resources internally, an alliance is recommended.

5. 3 Applying the Notion of Networking

When applying the network theory and combining this with the empirical data in this paper, an important question emerges as to what kind of risks Convener needs to handle when allying with another organisation.

With the purpose in mind of accessing the market through associating with an adequate partner; three possible scenarios will be investigated in this section.

5.3.1 The Creation of a Network

During the initial phase of becoming working colleagues, after have received their master degree in Lund, the managers at Convener; Marc Klefter and Richard Lindberg, experienced all of the different phases expressed by Landström (2005).

This phase was characterised by the notion of *connecting*, first with each other, then with externals. As they passed through phase one (concentrating on important dyad relations; Landström, 2005) of first being friends and then developing their relationship to a more business related relationship, they took the first steps of laying a foundation for the company.

By examining their private surroundings, by this referring to their respective private relationships, they got in touch with several friends and acquaintances that later proved to be valuable business connections. Those valuable business connections were for example their fellow students and colleagues at the University that got involved in Convener on a deeper level by acting as professional support or by taking part of their advisory board.

The transformation of their relations from private to business equivalents is an exact match of the described phase two (translation of these dyadic links to socioeconomic exchanges; Landström, 2005) which deals with the establishment of a business network.

Starting off with Marc's and Richard's friendship acting as a platform for the further development to a professional relation and then consolidating this relation by investing in Convener, equals the described phase three (expansions of those links to a multiple exchange between parties; Landström, 2005). Also their personal network that accepted to take part in the creation of the company can be related to this phase.

During the process of establishing important connections, in their private, as well as, business surroundings, Marc and Richard have both stressed the importance of communicating a sense of **legitimacy** when approaching partners. By this they accentuate the importance of being able to demonstrate a credible advisory board as well as the importance of being able to refer to a network of respectable members. Also Convener's recruitment process is well elaborated and is characterised by a careful selection of those candidates who appear to be the most promising; this makes the ambition of being considered as an already established organization evident.

The keyword "legitimacy" is an adequate platform for **earning trust** from externals which are not yet involved in the network, in terms of attracting their curiosity and interest.

The exposure related to the presentation of their innovation to possible collaboration partners contributes to an open atmosphere and demonstrates the commitment to its innovation; as also stated by Zineldin (2002). By uncovering some parts of the technology they hope to attract the interest and trust from the potential partner.

Convener's willingness of pursuing mutual values and goals are necessary conditions for Alpha and Beta to get interested in a collaboration with the company. As they stated in the empirical section, both get in touch with interesting business ideas and technologies through recommendations from existing network partners. Hence, they put more trust into the suggested business idea based on the fact that their partner already earned the legitimacy and trust of both Company Alpha and Beta.

However, Convener does not possess an established relation to an organization with a high level of legitimacy at the moment. The first step of generating trust is not dependent on the people employed at Convener (or its advisory board) respective its minor network; the source of generating trust is based on the possibilities of Convener's technology to **generate value-adding elements** to the future partner's product. However, it is a complicated and rather long procedure to earn the trust of others, particularly if they hesitate about the perceived uniqueness of the technology as in Alpha's case.

At this point the bigger company, who already enjoys the benefits of its extended network of business contacts, often tends to turn down small companies based on its assumption that the small company just wants to exploit the bigger companies resources and connections.

Obviously, it is not only a matter of generating trust and legitimacy that is in question here, but also about being able of generating trust *quickly*. As Convener urgently needs to develop a high level of credibility to be able to access the market, it lies in their interest to be able to present the

innovation in a credible way to potential partners combined with supporting elements such as a trustworthy advisory board.

5.3.2 Risks Related to Allying with Bigger Companies

Landström (2005) points out the importance of trust when creating a group of associates and how trust acts as a crucial module when trying to access the market and business networks. It is therefore important that Convener is able to confront the emerged suspiciousness by others regarding the potential of their business idea and its technology. Convener must try to develop itself to a partner with an equal level of influence as that of the other partner. To achieve this, Convener must try to further develop their external resources (the direct channel to the customer, funds or invested capital and the access to relevant business networks) as well as internal resources (Convener's technology, Convener's credibility/network of credible and competent people).

The actual process of achieving these preconditions takes time, but Convener must accomplish this to *become a central actor in its network*; and by this becoming indispensable. This is naturally correlated to the capability of generating trust (Zindeldin, 2002). By becoming increasingly more important to their network of associates, Convener's technology becomes a potential important element to cell phones and therefore acts as a base to experience the effects of network externalities. Zindelin (2002) stresses the importance of reaching a win-win situation, where the partners included in the project need to extract benefits and not disadvantages from the partnership. Hence, if Convener succeeds in reaching a position of increased influence through the variables cited earlier, a win-win situation might appear.

For Convener the intention of strategically allying with others is obvious, since they lack the direct link for accomplishing their current business mission; to enter the market. They need to acquire this from the external environment, even though finding a partner from an outside environment interested in aligning with Convener might be difficult.

Besides Convener's capacity of generating trust through its network and the fact that they need to appear professional when presenting their ideas, they need to attempt to fully convince the potential partner that an alliance also is essential to *them*, therefore attaining a *win-win situation*.

As Rese (2005) substantiates, firms who are included in any form of strategic partnerships are part of a value creating network. Convener needs to put in more effort into persuading the potential partner, since they are the provider of products that enables the functionality of Convener's software.

The reluctance of Company Alpha to believe that Convener would be able to progress in the establishment of a stronger organization owes to Convener's deficient financial base, which minimizes their strength on the market. Hence, there is a great likelihood of *an unequal power balance*, which can be related to the notion of centrality (Landström, 2005). Convener's main interest is to stay independent (independent in terms of staying self-governing and not being acquired by another company) in a partnership and they aim to get involved in a partnership that involves the possibility of obtaining the lacking resources. Finding a balance in the power structure can thus be problematic because of Convener's company size, compared to its potential ally, and the urgent need of acquiring resources that only can be offered by an external partner, at the moment.

Here it is relevant to assess the extent to which Convener is in need of the lacking resources, in proportion to becoming too inferior its bigger ally.

The risk of losing *trade secrets*, or actually, in the case of Convener their entire business idea is evident, by being too open when presenting their technology. This accentuates the importance of acting trustworthy, or other parties might be tempted to try replicating or recreating the system through a smaller modification of Convener's technology. Convener is aware of this potential danger, since they stated in the empirical section that they can more or less only protect themselves through a patent.

When eventually agreeing to a future partnership, Convener appears compelled to uncover the quintessence of its innovation, in order to enable other parties to make their product compatible with the software and technology. The combination of being *inferior positioned to its partner* (in terms of not being a central actor) and by this risking *the possibility of being forced to reveal most of its innovation*, raises Convener's vulnerability. Hence, such a situation augments the risk of ending up in a worse bargaining position than the initial or even risking being precipitated.

Both Alpha and Beta monitor interesting, innovative and potential profitable ideas. When committing to a co-operation, they are aware of the *risk of failing* in the accomplishment of a project. Both Alpha and Beta agree that there does not exist an infallible method of protecting themselves from failure, and they need to progress on the market without being largely interrupted by it if it occurs.

However, a failure does not get easily overcome by a minor firm that lacks both essential resources and financial capital to survive. The initial search for connections, based on the search of the lacking resources (the direct channel to the customer, funds or invested capital and the access to other relevant business networks) is central to pursue, before entering another partnership. These elements of preparing strategic alliances must be thoroughly deliberated, but takes time and are difficult to achieve. It is important when entering an alliance and during the initiation of mutually operating, to be prepared of the prior mentioned hazardous factors.

However, the notions of trust/legitimacy, supported by the network, and the awareness of potential risks, militate for Convener's possibilities of building a proper foundation for the business. Being considered as trustworthy and legitimate by others should largely facilitate the mission of approaching interesting actors on the market that are previously not involved in the network.

5.3.3 The Determination of Which Partner to Approach

As confirmed above, the notions of trustworthiness and legitimacy constitute the pillars for enabling a successful approach of a future partner and consequently launching one's software to the market.

Convener's main interest lies in networking, through the examination of the founders' private networks for potential business relations. Richards, one of the managers at Convener, explains the necessity of a partner to have a large contact base of other content providers. Thus, the partner's network is of great interest to Convener, as this often entails other valuable connections, which supposedly could support Convener's venturing and thus rendering its business idea gradually more eminent.

As Landström (2005) discusses in his theoretical frame, *being a central actor in a network is considered important as it is positively correlated to the degree of power intensity*. As a central actor in a network, one exercises a crucial impact on several companies and consequently possesses an increased power level; by this referring to the fact that they depend more or less on each others' resources.

However, Convener does not match the criteria of being considered a central player, as they *possess only a restricted number of valuable connections*. Furthermore, they do not yet hold the most important connection; in other words the partner enabling Convener to make its technology compatible with the cell phones software system and thus enabling a connection to the customers.

Convener's current approach of contacting a *by definition* central actor, like Alpha or Beta, is wise, as they are most likely to be able to offer the resources Convener lacks for the instant (like financial aid to support and develop the technology).

But there are also risks involved when co-operating with a big actor like Alpha or Beta. One way of securing oneself from being too inferior the much bigger partner is to try to attract some invested capital, as witnessed in the empirical section of this paper.

It appears important to have some sort of power balance when collaborating with external firms. This is why another proposed solution for Convener would be to join a collaboration with a smaller firm in another sector, since this probably would involve a more equal power balance as well as a strengthened position when negotiating with bigger firms. This solution would also offer the opportunity of being able to offer more of an integrated solution to the end customer, something that is supposed to further increase their attractiveness to other partners. A third solution for Convener would be to join an alliance with a bigger company experiencing a down period and in the need of a decoy bird (as Convener's technology) to attract as well as to retain customers.

Also Figure 1 the network fan (Nygaard et al., 2002), illustrates the essence of connecting actors to the network who are not previously involved; hence the approach of several independent *network groups*, thus enabling the dispersal of the company's software and brand.

When executing this strategy of approaching an actor that does not match the definition of *centrality*, it is necessary to pin down what the actual intentions are with the cooperation. In this situation it is important to be determined about whether the intention is solely to gain access to resources, or if the destination of this strategic process is basically to enter the market, no matter how.

By pursuing the alternative strategy of approaching other types of firms than just the biggest companies in the telecommunication sector, one could possibly be able to faster access the market. Hence, the main ambition for a company in Convener's situation should be to try to gather a basic customer group, who in turn recommends the system to their personal and business network and thus practises the notion of network externalities. This alternative approach of diffusing the technology is also supported by Christer. He has the opinion that students or other technological visionaries forms an adequate and easily convinced target group for spreading the technology. The fact that the software would be released for free increases the odds for also being able to shape a delicate form of loyalty in its customer and thus making Convener's brand even more visible.

The discussion about the determination of what kind of partnership, meaning vertical, horizontal or complementary, to enter is argued like followed; approaching the bigger companies will be considered a vertical partnership. Like displayed in the empirical section, these firms are OEM manufacturers and could hence provide Convener with the elements (telephones) necessary to make their system functional. They would also to a high degree consider the customer's needs and possibly enhance the effectiveness of the supply chain.

On the other hand, by allying with a similar company, they can get strengthened through uniting their efforts, as one competing firm. The two firms could together ameliorate their technology and then together approach a bigger venture. The definition of the complementary partnership could be applied as they together try to complement each other and thus using each others resources to offer a complete and integrated solution.

5.4 Applying the Framework of Network Externalities and Standards

Even if Convener succeeds in reaching the market with its technology, they have to be aware of the fact that the market Convener aims at accessing is operating in a dominated environment and thus the question of how to survive still remains.

By engendering a customer base, the value of the product increases, which in turn will consolidate Convener's position in the market. Shapiro et al. (1999) discusses that some firms choose to offer their products for free in order to allow the company to build up a base of loyal users faster. Through this, they wish to obtain some of the benefits emerging with network externalities and finally become or at least become a part of, a standard. Christer shares this view, and gives the advice to Convener to attempt to first try and reach a niche market before proceeding. An example would be a company reaching out primarily to students who are open and curious for new technologies before reaching out to other segments of the market. Richard and Marc are also spokesmen of the idea of introducing a freeware version to reach target markets.

To establish a standard, a company needs to possess a critical resource, a potentially standard-defining technology (Hill, 1997). Both Marc and Richard are certain of the fact that their technology, which enables people to turn their phone into a server and therefore interconnect without an operator, is new and unique. Christer Månsson shares their opinion and thinks that their idea is groundbreaking in the telecom industry. Company Beta seems to be in support of Convener's technology as Beta believes that the telecommunication industry will contain another structure in the near future when it comes to the role of the mobile phone operators. Also, they estimate that presumably the manufactures will play a bigger role compared to the operators. Alpha on the other hand, is of a different opinion as they believe that the operators stand for mobility and added value and that this makes them difficult to discard. Alpha mentions the fact that one can never be sure that nobody else has come up with a similar idea. They are also sceptical to how the technology could be unique or complement the IMS technology.

According to Hill (1997) a company needs, in addition to holding the critical resource, to possess other resources (e.g. distribution channels, patents and a brand name) if they want to attain or be a part of a standard. Christer believes that except the unique technology, Convener has a competence and employee personality which is rare yet important if one wishes to succeed. The main problem right now is how to reach the resources they do not possess, as aforementioned; a direct channel to the customer, funds or invested capital and the access to relevant business networks.

Some firms cooperate when releasing a new technology in order to signal to other members in the market that this technology will be a standard in the future (Hill 1997). IMS is a project by several operators and some of the biggest manufactures in the market. Hill (1997) discusses the two criteria when establishing standards; the number of users and product compatibility. According to Company Alpha, they only manufacture ten per cent cell phones that are compatible with different standards, the rest are accordingly standardized to meet the operators requirements. A problem Richard also is aware of, but he also believes that in a very near future, there will be phones that contain open operating systems and will be more compatible with different technologies.

Network externalities occur when the technology gets accepted by more and more users as discussed in 4.6. If the technology gets accepted as a standard, it will be exposed to improvements

and developments from elsewhere; if the IMS is a new standard one could say Convener's technology is a further development and improvement of it.

However IMS is yet to be released to the big mass, which provides other participants (e.g. Convener or Skype) in the market with a still existing chance to win the standards race.

When connecting the idea of network externalities with standards, the technology that gets adopted by most users first, also gets to set the new standard. Both Marc and Richard believe that the IMS is in some way already a standard, mostly because of the number of actors involved in the development of it. Even if this creates an obstacle for other potential participants on the market, it does not mean there is no room for other actors.

If one creates a compatible, but alternative technology and uses the right channels to reach out to the customers (recall the notion of networking based on the resource based view), one has good odds of overcoming barriers and to succeed in accessing the market. The standard race is about getting a technology widely accepted as fast as possible, since the technology which gets accepted as a standard will turn out to be most successful in the future (based on the notion of network externalities). This is also supported by Shapiro (1999) and Hill (1997) who claims that the technology the customers expect will be the winner will also become the winner.

This means that in a standard war only one of two equal strength firms will turn out to be the winner.

5.5 Centralising the Analytical Framework

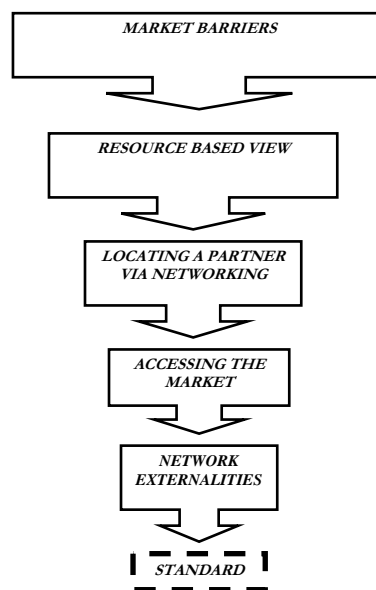


Figure 4 The Analytical framework

During the course of the interviews and the analysis several potential hindrances to the launching of a new technology in the mobile telecommunication market has been revealed.

The telecommunication sector has traditionally been characterised by a certain rigidity in terms of well defined roles for the companies constituting the value chain and the dominance of some huge actors. Even though some opinions, revealed during the course of the interviews may indi-

cate that the future might bring some changes to this sector, the situation described by the different interviewees seems rather unanimous. Another known problem in the high technology sector, as the mobile telecommunication market is a part of, is that everything has to go fast, thus something that is directly opposed to the time required to establish a strong feeling of trust between two potential partners.

As our study object Convener is a small player on a gigantic market, they do not possess all the necessary resources to equally compete with its resource abundant competitors, hence *they need to get in contact with a partner that can facilitate their access to the market*. However, to access the market they need to offer something in return in order to get other resource abundant partners interested, thus a win - win situation must occur. By identifying the resources they possess at the moment as well as the critical resources needed to be able to access the market one can distinguish the resources they lack and thus needs to get in touch with. Hence, a win – win situation can only occur if the collaboration partner possesses at least some of these critical resources and moreover is interested in accessing Convener's resources.

To be a part of, or at least have access to, the right network of partners is thus deemed to be of utmost importance. By being a part of, or by accessing, the right network of partners one can supposedly get in touch with the lacking resources. Even though one can not get in touch with the lacking resources through one's own network, one may find it in an adjacent network that is connected to one's own network (Landström, 2005). Convener's network has been mapped as initially starting off with their personal network and friends, which later has developed into a not insignificant business network. Trust and legitimacy has been identified as two important factors when expanding one's personal and business network, something that Convener has tried to assemble by putting a lot of effort into the gathering of an experienced and well-renowned advisory board.

To be able to succeed on this specific market, collaboration seems to be an absolute requirement. Put in other words; to access the market you have to collaborate with other parties in the value chain, *you can not do it alone*. This has been confirmed by all persons interviewed in the empirical section, and can thus be considered a prerequisite for competing in the mobile telecommunication sector.

Once Convener has accessed the market, the main question of how to survive will still remain. As mentioned in the analysis is it crucial in the high technology market to become a standard or at least a part of a standard. Hill (1997) has settled the fact that to be able to become a standard on a certain market it is all about gathering enough customers to use your product which in turn generates even more customers. Once Convener has entered the market it is of utmost importance to reach as many users as fast as possible. Network effects occur the more users are connected to a product and this in turns might lead to a standard or being a part of a standard.

6. Discussion and Results

This chapter begins with the authors own reflections based on the theoretical, empirical and analytical parts presented in earlier sections. This will be followed with the questions at issue from chapter one which will be answered based on the results made in the analysis and in the authors' discussion.

6.1 The Authors Discussion

When a minor firm is trying to approach a bigger company interested in joining an alliance or partnership they have to be aware of the significant risks related to the alignment with a much bigger partner. It is in such a situation important for the small firm to start out from their own experienced needs. Also, not be too dazzled by the potential of joining an alliance with a well known and respect inspiring partner.

Three possible scenarios are presented by the authors;

I. Alliance with a big company

A minor company targeting a larger company, in other words the latter being a central player in the network should in detail examine *the bigger partners level of centrality in its current network*. Is it the biggest player or does it have connections to another even more central player that could be interesting to incorporate in a future collaboration?

Consequently while choosing and examining a potential partner, Convener needs *to take the partner's network of partners* (as described in the resource based view; the access to relevant business networks) into consideration and evaluate if those connections could be future profitable sources. This is also confirmed by Richard who requires that the partner has a broad and, for Convener, interesting network. Both Company Alpha and Beta possesses a loyal customer base (referring to the resource based view; *direct channel to the customer*), are well established and have secure connections to both operators and other manufacturers, and furthermore possesses a well-known brand. They also possess substantial funds and invested capital. An official collaboration with a bigger enterprise would certainly imply a huge advancement in terms of credibility for Convener. This would possibly facilitate Convener's relations to other networks, by that referring to resource abundant companies not yet involved in the network, as they now can show proof of their legitimacy.

II. Alliance with a small company

Besides focusing on bigger companies to ally with, Convener should expand its view to other minor companies. This could for example be in another sector; such as the multi-media industry. Allying with a partner in the multimedia industry could give Convener the opportunity of developing a variety of compatible multimedia solutions that could enhance the desirability of its software. Since Convener is situated in the nearby of both Ideon and LTH they are also closely related to important sources of general business knowledge and high-tech specialists that can provide them with the latest technological developments, something that also provides them with a wide spectra of potential partners (the access to relevant business networks). To "refresh" one's technology through combining it with another ambitious small firm's can by all means attract the attention of a bigger company. This is something that Christer Månsson agrees on, as this could involve that they even may attract the partner's customers (the direct channel to the customer). In addition, it might be easier for Convener and its partner to together confront and handle challenges related to a bigger company, such as the ab initio unequal power structure. This kind

of alliance allows Convener to add value to its internal resources, i.e. the technology and credibility/network of credible and competent people.

III. Alliance with a ‘complementary’ company

Christer Månsson advises Convener to reconsider its current strategy of only targeting big companies. Convener could complement this search for a potential partner at the bigger companies with an expansion, or even entirely redirecting its focus, versus companies that experiences a diminishing market progress and risks vanishing from the market based on a decreasing demand for their product. As such a firm would be about to experience vanishing market returns, it should not be considered to be a central player in the network, and *opposes thus the notion of centrality*.

Based on this, seeking a partner who finds itself in a declining phase could imply experiencing both sides of the coin. However, even though the declining company might be heading out of the market, it can still be in the possession of valuable connections (the access to relevant business networks), which in turn can contribute to Convener’s value (such as the internal resources; technology and credibility). Each contact in this network can turn out to be important milestones, “lifting” Convener from one important connection to another until Convener finds itself to be satisfied with its strategic position in the network. Visually one can imagine a spider in net, scrambling up to finally get its reward, the fly.

It can be assumed that the gradual creation of Convener’s business and thus the introduction of the innovation can be illustrated by the following equation;

Convener’s legitimacy + passion for innovation = gain trust and thus resources through network

And further;

Resources + centrality in its network = access to market

However, once at the market, the small firm can get exposed to a number of risks and the question of surviving arises. By expanding the customer base one can increase the experienced value of one’s product/technology and through that acquire more slices of the market. Hence by succeeding in getting hold of a dominating market position, one automatically receives an advantage versus competitors. However, to be able to this one has to possess a well reputable product, something that Convener has yet to prove. *Their chances of reaching this stage depends on their success in attracting an influential network of associates and business partners, interested in investing in the technology.* Hence, by accessing the right network one can considerably increase one’s chances of resource pooling and thus accessing the critical resources needed to access the market.

6.2 Questions at Issue

To round off the discussion and make some conclusions the questions at issue from chapter one are responded below. The answers are based on the gathered information from the empirical and theoretical chapter, followed by the analytical and the authors own discussion.

- How can a small innovative firm disclose the right partners with the intention to access the market?

The first step involves identifying which resources the firm possesses and which critical resources they lack to be able to gain admittance to the market. The second step denotes a search for the right partner that possesses the lacking resources. In return for the access to these resources, the small firm must be able to offer something substantial, e.g. the access to a superior technology

- What are the risks that can arise through strategic alliances for small innovative firms?

As always when it comes to alliance forming it is vital to be able to create a feeling of trust and not submerge to an unequal power balance. It is of utmost importance that both parties feel that they can benefit from the collaboration and that they do not feel exploited. However, a small company easily ends up in an inferior balance position, which can entail that the collaboration does not work out in the long run. To avoid this situation it is important to fix the conditions regarding the alliance/partnership before entering and protect oneself through patents and other legal solutions.

- What are the chances for a small innovative firm to survive in a strongly dominated environment?

Once out on the market it is all about surviving. By building a large and/or strong customer base the value of a product increases. Since Convener operates in a market where network effects constitute an important condition for surviving, the value of gathering a large customer base becomes even more apparent. This because the more users, the bigger the chance of surviving.

Several factors have to be fulfilled if one wants to access and further survive on the market. The paper has shown that possessing the right resources is crucial, but not conclusive. Other conditions as the financial status, the right channels et cetera are highly important to succeed. The risk of not obtaining the right power balance is extra important for a small company, since it might be difficult for them to protect themselves against a stronger partner. In the long run it is the end customer who decides if a firm's technology will survive or not. This is why it is especially important to reach as much users as possible and to make them realise the magnitude of the technology.

7. Reflections

7.1 Methodological Considerations

The replicability of this paper has to be handled with caution. It is of important to bear in mind that every firm is unique; therefore it is difficult to say what the results of the interviews would suggest for another company. However, as mentioned in section 2.2.2 (the replicability of this thesis), the mobile sector is dominated by a few large players who set the rules for the smaller actors and these conditions are similar for all small new entrants which makes the theories applicable in a similar situation. The interviews were made according to best practice, and at least two researchers were present. At the same time, admittedly one should take under consideration the fact that a phone interview offers more possibilities for a certain information drain due to the lack of “face to face” contact. This was however aimed at being prevented, as all three authors made sure to be present during the phone interview and participated in the information process to avoid any biases. One can always take alternative methodological approaches under consideration. Regardless, we deem it to be a strong validity of this paper since the results would most likely be the same if replicated by other researchers if; *Ceteris Paribus – all other things being equal*.

7.2 Theoretical Considerations

As already established, Convener is a small innovative firm with only two resources; their technology and their credibility/network of credible and competent people. In order to succeed in the market, it is crucial for the company to possess several critical resources, at the same time one can not succeed and further survive without entering the market. This is why it is also of one utmost importance to find a way to access the market. The two main theories used in this paper, the resource based view and the network theories are important complements to each other. However, there are some critical factors that can not be disregarded, e.g. barriers to entry present on the market, but also what happens after entering the market and how to maintain ones position.

By applying the proposed analytical framework the relation between the used central theories and the complementary elements gets displayed. No conflicts have surfaced between them. They have served their purpose, to show how the different aspects influence each other.

7.3 Implications for Future Research

This paper has focused on the possibilities of one small company to access to the market through engaging in different types of strategic alliances and collaborations. Hence, as mentioned in 7.1 (methodological considerations) it is rather limited in its implications for other types of firms and other types of markets. Consequently, it would be interesting to get a more perspicuous view of a similar situation, involving a bigger sample of firms.

As question three in “Questions at issues” indicates, the chances for a small firm to survive in a dominated environment can also be evaluated through a follow-up of the company in time, con-

sequently to follow the evolution of Convener, and thus teach us the lessons that are to be learned from their experiences.

I. Glossary of Technical terms and Definitions

1-4 G

Different generations of Mobile Wireless Technology, where 2 G supersedes 1 G et cetera

3GPP

3rd Generation Partnership Project. A collaboration agreement between European, Japanese, Chinese, Northern American and South Korean members of the information and communication technology industry aiming to unify the 3 G mobile phone system.

3GPP2

3rd Generation Partnership Project 2. A collaboration agreement between Japanese, Chinese, South Korean and Northern American members of the information and communication technology industry aiming to unify the 3 G mobile phone system.

IMS

Internet Multimedia Subsystem, a new standard for file transferring aiming at accessing the market sometime during the immediate two or three years.

IPR

Abbreviation for Intellectual Property Rights. Often referring to the costs related to registering a patent, copyright etc.

MMS

Multimedia Messaging Service, a service introduced with the 3rd Generation of Mobile Wireless Technology, enabling users to exchange various kinds of multimedia content via the mobile phone.

OEM

Abbreviation for Original Equipment Manufacturer.

SMS

Short Message Service, a service introduced with the 2nd Generation of Mobile Wireless Technology, enabling users to exchange short text messages via the mobile phone.

WAP

Wireless Application Protocol, international standard for wireless communication

II. References

- Arthur, B., (1994), *Increasing Returns and Path Dependence in the Economy*, The University of Michigan Press, Ch. 1-2
- Arthur, B., (1996), *Increasing returns and the new world of business*, Harvard Business Review, 4, 100-110
- Backman, J., (1998), *Rapporter och uppsatser*, Studentlitteratur, Lund
- Barney, J., (1991), *Firm Resources and Sustained Competitive Advantage*, Journal of Management, 17, 99-120
- Barney, J., (1996), *Bringing Managers Back In: A resource-based analysis of the role of managers in creating and sustaining competitive advantages for firms*", Texas A & M University
- Baum, J.A.C; Calabrese, T.; Silverman, B.S., (2000), *Don't go it alone: Alliance network composition and startups' performance in Canadian biotechnology*, Strategic Management Journal, 21, 267-294
- Bryman, A., (1989), *Research methods and organization studies*, Routledge
- Bryman, A; Bell, E., (2003), *Business research methods*, Oxford University Press Inc., New York
- Chakravorti, B., (2004), *The role of adoption networks in the success of innovations: a strategic perspective*, Technology in society, 26, 469-482
- Chung, J; Bae, Z; Kim J., (2003), *Changing patterns of technological cooperation activities of innovative small firms along technological development stages in the Korean telecommunication sector*, Technovation, 23, 163-173
- Das, T.K; Teng, B.-S., (2000), *A resource-based theory of strategic alliances*, Journal of Management, 26, 31-61
- Fine, C., (2005), *Are you modular or integral? Be sure your supply chain knows*, Strategy + Business Issues 39, 2005
- Grant, R.M.,(2005), *Contemporary Strategy Analysis*, Fifth edition, Blackwell Publishing
- Gulati, R., (1999), *Network location and learning: The influence of network resources and firm capabilities on alliance formation*, Strategic Management Journal, 397-420
- Gulati, R; Nohria, N; Zaheer, A., (2000), *Strategic networks*, Strategic Management Journal, 203-215
- Hill, C.W.L (1997); *Establishing a standard: Competitive strategy and technological standards in winner take it all industries*, Academy of management review, 11(2):1997, 7-25
- Landström, H., (2005), *Entreprenörskapet rötter*, Studentlitteratur, Lund
- Mohr, J; Sengupta, S; Slater, S., (2005), *Marketing of High-Technology Products and Innovations*, 2nd edition, Prentice Hall

Nygaard, C; Bengtsson, L., (2002), *Strategizing – en kontextuell organisationsteori*, Studentlitteratur Lund

Rese, M., (2005), *Successful and sustainable business partnerships: How to select the right partners*, *Industrial Marketing Management* 35, 72 - 82

Schilling, M., (1999), *Winning the standards race: Building an Installed Base and the Availability of Complementary Goods*, *European Management Journal*, 37, 265-274

Shapiro, C; Varian, H.R., (1999), *Information Rules – a strategic guide to the network economy*, Harvard Business School Press, Boston, Massachusetts

Shy, O., (1996), *Technology revolutions in the presence of network externalities*, *International Journal of Industrial Organization*, 14, 785-800

Stango, V., (2004), *The Economics of Standard Wars*, Federal Reserve Bank of Chicago, Vol. 3, Issue 1- March 2004

Tidd, J; Bessant, J; Pavitt, K., (2001), *Managing innovation*, Wiley, England

White, S; Siu-Yun Lui S., (2005), *Distinguishing cost of cooperation and control in alliances*, *Strategic Management Journal*, , 913-932

Zenaldin, M., (2002), *Developing and managing a romantic business: life cycle and strategies*, *Managerial Auditing Journal*, 17/9 2002, 546 - 558

Electronic references:

BBC News Online, *Mobile head for sales milestone*,
<http://news.bbc.co.uk/2/hi/technology/4697405.stm>, 24-04-2006, 09.20

Dagens Industri, *Ras i mobilförsäljning*,
<http://di.se/Nyheter/?page=%2fAvdelningar%2fArtikel.aspx%3fO%3dIndex%26ArticleId%3d2006%5c02%5c06%5c174759>, 24-04-2006, 13.30

Symbian
<http://www.symbian.com/about/index.html>, 20-04-2006, 10.00

TechNewsWorld, *Cell Phone Sales Defy Predictions, Hit Record Levels*,
<http://www.technewsworld.com/story/wireless/43406.html>, 24-04-2006, 10.00

Telephony Online, *VDC: IMS market \$2.6 billion-plus by 2008*
http://telephonyonline.com/wireless/infrastructure/technology/vdc_ims_standards_080205/index.html, 19-04-2006, 09.00

Wikipedia, the Free Encyclopedia:
<http://en.wikipedia.org/wiki/1G>, 20-04-2006, 10.00
<http://en.wikipedia.org/wiki/2G>, 20-04-2006, 10.10
<http://en.wikipedia.org/wiki/3G>, 20-04-2006, 10.30

<http://en.wikipedia.org/wiki/4G>, 20-04-2006, 10.45

<http://en.wikipedia.org/wiki/3GPP>, 20-04-2006, 11.00

http://en.wikipedia.org/wiki/3rd_Generation_Partnership_Project_2, 20-04-2006, 12.00

http://en.wikipedia.org/wiki/Multimedia_Messaging_Service, 20-04-2006, 14.00

<http://en.wikipedia.org/wiki/Symbian>,20-04-2006,16.00

III. Interview Information

Company: Convener
Interviewee: Richard Lindgren
Date: Approximately on four separate occasions (March-May)
Time: Approximately 4x60 minutes
Interviewee: Ewa Sitkiewicz, Nadine Kissmann & Estelle Lönnberg
Secretaries: Ewa Sitkiewicz, Nadine Kissmann & Estelle Lönnberg

Company: Convener
Interviewee: Marc Klepter
Date: 28/04/2006
Time: 60 minutes
Interviewer: Ewa Sitkiewicz
Secretary: Nadine Kissmann

Manufacturer: Alpha
Interviewee: Senior Market Representative
Date: 10/05/2006
Time: 60 minutes
Interviewer: Ewa Sitkiewicz
Secretaries: Nadine Kissmann & Estelle Lönnberg

Manufacturer: Beta
Interviewee: Senior Market Representative
Date: 12/05/2006
Time: 60 minutes
Interviewer: Ewa Sitkiewicz
Secretaries: Nadine Kissmann & Estelle Lönnberg

Company: Teknopol AB
Interviewee: Christer Månsson
Date: 11/05/2006
Time: 60 minutes
Interviewer: Ewa Sitkiewicz
Secretaries: Nadine Kissmann & Estelle Lönnberg

Person: Agneta Planander, Institute of Service Management, Helsingborg
Date: 27/04/2006
Time: 45 minutes
Interviewer: Ewa Sitkiewicz, Nadine Kissmann & Estelle Lönnberg

Person: Fredrik Häglund, Researcher at the Institute of Economic Research, Lund University
Date: 27/04/2006
Time: 45 minutes
Interviewer: Ewa Sitkiewicz, Nadine Kissmann & Estelle Lönnberg

IV. Interview Information and Questions for Company Alpha and Beta

Convener utvecklar en mjukvara ämnad för mobila enheter i följande syfte: tillåt varje användare med en mobiltelefon, handdator eller bärbar dator, att anta rollen av en web server på Internet och därmed hysa en "personlig portal" direkt i enheten. Målet är att skapa en ny typ av web, den första verkligt "individuppbyggda World Wide Web", som till skillnad från den existerande webben är helt uppbyggd av människor i mobil miljö.

Teknologin åstadkommer ett globalt, decentraliserat nätverk av web servrar körandes på mobila enheter med en egenutvecklad domännamnshandling, vilket innebär att varje individ med exempelvis en mobiltelefon kan driva en web server i enheten med valfri webaddress, fullt synlig på den vanliga webben och åtkomlig för andra mobila (och även stationära) användare, men utan att adressen måste registreras eller betalas för. Denna infrastruktur tillåter användare att navigera mellan varandras enheter och ta del av det innehåll som exponeras, bl.a bilder, videoklipp och annan information, på varje personlig portal direkt i mobiltelefonen. Idag är denna datamängd inte synlig på webben; t.ex kan Google bara söka efter information på publika web servrar på Internet. Med Convener på varje mobiltelefon med Internetaccess blir plötsligt en enorm informationsbas tillgänglig och sökbar, allt i ett nät av direkt sammankopplade, mobila individer. Stommen i Conveners teknologi utgörs av en avancerad web server, vilket innebär att allt som individer är vana vid att ta del av och använda på den existerande webben också återfinns i de personliga portalerna på de mobila enheterna, i form av tjänster anpassade för olika medieformat, däribland bilder, musik och filmer. Sammanfattningsvis erbjuder Convener en unik produkt för mobila enheter, med vilken individer ej längre är begränsade till att agera som enbart klienter utan kan själva bli informations- och tjänsteleverantörer.

Tankesättet vänder upp- och ner på gängse perspektiv på hur mobiltelefoner nyttjas idag, men just det faktum att en individ blir ett centralt nav i en obegränsad och dynamisk web, gör dem till pionjärer i fråga om att använda mobiltelefoner på nya, spännande sätt och låter dem skapa närmare koppling mellan sig själva och sina kontakter.

Små företag, såsom Convener, med ny teknologi för mobila tjänster utgör främst ett hot mot operatörer. Skype, med sin VoIP – lösning, är ett typexempel. Skype är på väg med en version av sin produkt för mobiltelefoner från en rad tillverkare, som välkomnar denna utveckling då slutanvändare erbjuds bättre nytta och upplevelser tack vare Skype och avancerade, mobila enheter. Däremot utgör detta ett hot mot samarbetet som idag existerar mellan operatörer och tillverkare; VoIP (som operatörer har som mål att kunna erbjuda sina kunder inom några år) är i och med Skype redan en realitet, där operatörer också förbigås som leverantör av tjänsten.

– Frågan är då: Om tredje parts tillverkare i allt större utsträckning frångår samarbete med operatörer och istället närmar sig tillverkare direkt, kan det traditionella förhållningssättet mellan operatör och tillverkare rubbas, vilket med tanke på IMS (där både operatörer och tillverkare gemensamt arbetar fram standarden) kanske får konsekvenser. Hur ställer ni er till detta? Känner ni att mindre företag med en starkt övertygande teknologi utgör ett hot för er idag?

Eftersom tillverkare traditionellt inte har utvecklat mobila tjänster, har några "alternativ" inte existerat, tjänstebiten har lämnats till operatörer. På senare tid har dock detta ändrats, ett bra exempel är Nokias samarbete med bilddelningssajten

Flickr; Nokias nya enhet N73 är integrerat med Flickr, där användaren efter att ha tagit en bild enkelt kan klicka på "Upload to Flickr" i sitt bildgalleri och få bilden publicerad online. Operatören är därmed inte leverantör av Flickr-tjänsten.

– I vilken utsträckning letar tillverkare efter tredje parts tjänsteleverantörer och möjliga samarbeten med dessa, vilken typ av tjänster är intressanta att direkt integrera med nya enheter? Vad är er strategi när ni tittar på alternativa tekniska tjänster som erbjuds på marknaden idag?

Det är viktigt att förstå att Convener inte bygger mobila tjänster enligt Flickrvarianten, utan att Convener bygger

a) ett nätverk av mobila och stationära enheter

b) en tjänsteplattform och

c) tjänster för olika media (musik, bild, video) och sektorer. D.v.s., de skall jämföras med IMS, ej en leverantör såsom Flickr. Conveners produkt medför kostnadsfördelar för kunden men inte för tillverkaren; denne kan istället se att nya enheter, med Conveners tjänster, blir attraktivare för konsumenterna.

– Baserat på den information ni har om Convener, hur bedömer ni Conveners teknologi/koncept? Är den "behövd" eller revolutionerande på marknaden idag?

Vidare tror ni att Convener skulle kunna fylla ett gap hos er, dvs. att ni saknar en resurs som de skulle kunna erbjuda er?

Om ja, kan ni inte komma åt denna resurs på annat sätt?

Vilken är den resurs ni besitter som ni tror att Convener främst är ute efter och vad kan ni erbjuda?

Om ni skulle ingå ett samarbete med ett litet företag, vilka identifierar ni som de huvudsakliga riskerna och fördelarna med samarbetet?

Ponera att ni skulle ingå ett samarbete med Convener. Hur mycket tid/kraft/uppslag är ni beredda att lägga ner i samarbetet? Vilken skulle den ultimata samarbetsformen vara för er?

Utöver den teknologiska biten, vilka faktorer är viktiga för er ni på när ni ingår ett samarbete med ett annat företag?

Vidare hur gararderar ni er för att konceptet eventuellt inte skulle hålla? Hur skyddar ni er mot misslyckande?

Vad anser ni, utifrån den presentation ni har fått om Convener, om deras möjligheter att komma ut på marknaden och skapa sig en bred kundbas.