Venture Capitalist and Start-Up Cooperation – a Case Study About Market Orientation and Radical Innovation

Eero Kilpi

Venture Capitalist and Start-Up Cooperation –
a Case Study About Market Orientation and Radical Innovation

Eero Kilpi

441   697
Printed matter

A? **Aalto University**

Author
Eero Kilpi

Name of the doctoral dissertation
Venture Capitalist and Start-up Cooperation – a Case Study About Market Orientation and Radical Innovation

Abstract

   The overall purpose of this multiple case study with two venture capitalists (VCs) and two start-ups (SUs) is to explore and to understand how venture capitalists and start-ups cooperate and how cooperation 1) between venture capitalists and start-ups and 2) between start-ups, affect start-ups' market orientation in the context of radical innovations.

   Among other contributions this study gives attention to the changes that VC-SU cooperation can cause in SUs business opportunity. It brings an inter-company aspect to the discussion of market-orientation and its role on new product success. Further, it adds to the new product development discussion and comes up with a tool for practitioners, where traditionally tangible and operational tools have been scarce.

   In the studied VC/SU relationships participants saw cooperation less as an opening for learning from other organizations. Further, investors and start-ups had clear-cut individual roles and particularly start-ups felt where investors should stand. Finally, it became very obvious from the start that the kind of trust and commitment that repeatedly shows up in knowledge management literature as a prerequisite for new knowledge creation didn't take place in the same manner in the studied VC/SU relationships.

   I suggest an inter-organizational coordination function and with elements of cooperation and marketing tools I come with a market identification workshop model that is organizing according to the principles of knowledge management's SECI process.

   I further suggest an independent integrator job description of a market intelligence officer to run the market identification workshop. It includes the evaluation of where every SU is along the line to commercial success with their product, market intelligence and strategy. In order to achieve this knowledge vision is needed to be able to work on the assets that different SUs have. VCs would have to reach beyond ensuring that the "right" management team is in place, to distinguishing if the SU organizations are equipped with suitable competencies to master how to fulfill the needs that an evolving new marketplace needs.

Tekijä
Eero Kilpi

Väitöskirjan nimi
Venturekapitalisti ja startup yhteistyö - casetutkimus markkinaorientoituneisuudesta ja radikaali-innovaatioista

Julkaisija Kauppakorkeakoulu

Yksikkö Markkinoinnin laitos

Sarja Aalto University publication series DOCTORAL DISSERTATIONS 59/2014

Tutkimusala Markkinoinnin johtaminen

Väitöspäivä 30.05.2014

☒ **Monografia** ☐ **Artikkeliväitöskirja** ☐ **Esseeväitöskirja**

Tiivistelmä

Tämän tutkimuksen tarkoitus on tutkia ja ymmärtää kuinka venturekapitalistit ja aloittelevat yritykset (startupit) tekevät yhteistyötä ja miten tämä yhteistyö 1) venturekapitalistien ja aloittelevien yritysten välillä ja 2) aloittelevien yritysten kesken, vaikuttaa aloittelevien yritysten markkinaorientaatioon radikaali-innovaatio ympäristössä.

Muiden kontribuutioiden lisäksi tutkimus kiinnittää huomiota niihin positiivisiin muutoksiin, joita venturekapitalistien ja startupien yhteistyö saattaa aiheuttaa jälkimmäisten liiketoimintamahdollisuuksissa. Se tuo yritysten välisen yhteistoiminta näkökulman markkinaorientaatio keskusteluun ja tämän näkökulman roolin uutuustuotteen menestystekijänä. Tämän lisäksi tutkimus tuo lisänsä uusien tuotteiden tuotekehityskeskusteluun ja ehdottaa työvälinettä liiketoiminnan harjoittajille tutkimusalalta, jolta konkreettiset ja käytännölliset ehdotukset ovat perinteisesti olleet harvinaisia.

Tutkitussa venturekapitalisti/startup yhteistyössä osallistujat eivät kokeneet yhteistoimintaa primääristi mahdollisuutena oppia toisilta organisaatioilta. Investoreilla ja startupeilla oli selkeät roolit ja varsinkin startupit kokivat missä organisaatioiden rajojen tulisi kulkea. Jo hyvin aikaisessa tutkimusvaiheessa tuli selväksi, että sellainen luottamus ja kommittoituminen, jota tiedonjohtamiskirjallisuus pitää edellytyksenä uuden tiedon luomiselle, ei ilmennyt samalla tavalla tutkituissa venturekapitalisti/startup yhteistoimintasuhteissa.

Esitän tutkimuksessa organisaatioiden rajat ylittävää koordinointitoimintoa ja yhteistoiminnan ja markkinoinnin osatekijöiden avulla ehdotan markkinaidentifikaation "työpajaa", jonka tehtävät rakentuvat tiedonjohtamisen SECI mallin periaatteiden mukaisesti. Ehdotan edelleen riippumattoman integraattorin toimenkuvaan perustuvaa markkinatietopäällikön tointa johtamaan kyseistä työpajaa ja arvioimaan missä kohtaa osallistuvat startupit ovat matkalla kaupalliseen menestykseen heidän tuotteensa, markkinatietonsa ja strategiansa kanssa.

Tämän lisäksi tarvitaan vielä tiedon visiota. Sen ohella, että venturekapitalistit nimittävät sopivaksi katsomansa johtoryhmän startupeille, heidän tulisi myös pyrkiä kiinnittämään huomiota, että näillä organisaatiolla on oikeita kompetensseja vastata niihin muuttuviin tarpeisiin, joita uusilla ja kehittyvillä markkinoilla tulee olemaan.

Avainsanat venturekapitalismi, markkinaorientaatio, radikaalit innovaatiot

ISBN (painettu) 978-952-60-5664-7   **ISBN (pdf)** 978-952-60-5665-4

ISSN-L 1799-4934   **ISSN (painettu)** 1799-4934   **ISSN (pdf)** 1799-4942

Julkaisupaikka Helsinki   **Painopaikka** Helsinki   **Vuosi** 2014

Sivumäärä 212   **urn** http://urn.fi/URN:ISBN:978-952-60-5665-4

"But if you get too abstract, you have nothing to grapple with and abstraction empties your thinking of content."

George Soros at NY times, money and business Dec. 6th 1998, page 10.

"What we do at Kleiner Perkins is we look for a fundamental and important technology breakthrough that will address a large, unserved market need."

John Doerr at NY times, business day May 3rd 2004, page 5.

"As information creates power, an individual might be motivated to monopolize it, hiding it even from their colleagues."

Nonaka, Toyama & Konno: "SECI, Ba and Leadership: A Unified Model of Dynamic Knowledge Chain," Managing Industrial Knowledge, Nonaka & Teece, (Eds.), Sage (2001), page 37.

Acknowledgements

Table of Contents

Table of Figures and Tables

1. Introduction

Venture capitalism is an important way of financing new product development projects. In the US alone there were 11.9 million venture capitalist (VC) backed jobs[1] in 2010, and in 2013 total investment was $29.6 billion in 4,077 deals[2]. However, an industry slogan states that only about every sixth start-up (SU) makes it in the long run. What if more start-ups could be successful due to active VCs' increased efforts in guiding SUs product offerings?

 VC backed innovations are often radical by nature (Hellmann & Puri 2002). This makes understanding the market place more complicated, thus blurring the picture of new product's marketability. Yet, better understanding of the upcoming marketplace, orientation toward eligible markets and an increased resolution in SUs market orientation lead to more suitable product concepts and offerings. The aim of this dissertation is to shed light on how much a VC can help an SU in its market orientation by getting more involved. It works on ways to find out to what level inter-functional coordination inside the company could be augmented with inter-organizational cooperation.

Why is this important? From a theoretical perspective, the majority of market orientation (MO) studies are based on existing marketplaces, measuring the levels of organizations' readiness to understand expressed needs on these markets. Even though some emphasis has been put on radical innovation and proactive market orientation, scant attention has been given to the sources revealing latent customer needs, and particularly inter-organizational cooperation in an MO context. From a practical perspective, an upcoming and evolving marketplace is elusive and each new step to understand new markets better should have, and will have, positive financial consequences.

1.1. Venture Capitalists, and Balanced Technology and Markets

In the remainder of this chapter I will first discuss the differing roles of venture capitalism in juxtaposition with SUs, technology and markets. I will follow this by focusing specifically on market orientation in the radical product realm.

---

[1] National Venture Capital Association 2011
[2] PriceWaterhouseCoopers/ National Venture Capital Association/ Thomson Reuters 2014

Venture capitalists are private equity investors, who acquire an equity share of financed start-ups, typically anywhere between 10 and 50 percent. The length of the investment is often in years, and payback comes through disinvestments either via mergers and acquisitions, or by taking start-ups public (Kogut, Urso & Walker 2007). Venture capitalists use varying methods in financing emerging businesses and adding value to portfolio companies. Some VCs work just by placing capital, while others want to take part in their companies' decision making. Several offer various specialist services, such as support in accounting and human resource management, and a few even invite companies to work at VC's premises, offering them their office infrastructure (for more about value added, e.g. Wang, Wuebker, Han & Ensley 2009, Chemmanur, Khrisnan & Nandy 2011).

Start-ups belong to an investor's portfolio of financed companies. It is typical that there are several investors financing the same start-up, and therefore start-ups regularly belong to several portfolios. VCs often maintain wide contact networks within their start-ups' business sectors. Networking, i.e. letting portfolio companies utilize an investor's contacts, has, at least in the incubator scene, been regarded as a way to speed up a product development process and bring increased efficiency into it (Hansen, Chesbrough, Noria & Sull 2000). VCs add value by providing capital and management expertise. Many also claim to be "hands-on" investors. Inspired by networking and cooperation, this dissertation is about the "hands-on" approach and what it entails or could entail.

The initiation of a new business enterprise is often based on novel technology. Some scholars suggest, however, that new product development (NPD) projects will be commercially more successful if they reach a strategic balance with market and technology. Technological synergy and marketing synergy are important for product innovation (e.g. Cooper & Kleinschmidt 1990, Cooper 2000). NPD projects should be responsive to both market-pull and technology-push in a structurally balanced way (Utterback 1974, Roberts 1990). Consequently, products should be new, unique and built according to their target markets preferences (Nyström 1977, Von Hippel 1978).

At times it must be difficult, though, to preserve a favorable combination of market and technology. The role of technology can be overwhelming, and to

build products to satisfy market preferences can be particularly difficult when innovations are radical and/or new to the marketplace. So, management dominance has often been more in technological, rather than marketing skills (Meyer & Roberts 1986, Knight 1986). Not only do many product development projects tend to be more technology - than market - driven, but many of today's start-up businesses also base their enterprises particularly on exploiting technological capabilities. Perhaps due to customers' difficulties in articulating a need for a major innovation, practitioners in high-tech companies do not always fully utilize what marketing has to offer for innovation projects (e.g. Workman 1993, McDermott & O'Connor 2002), and traditional market research methods are used infrequently in radical innovation projects (Leifer, McDermott, O'Conner, Peters, Rice & Veryzer 2000, Robinson & Chiang 2002).

Timing of market entry is one of the most vexing issues facing managers today (Mohr, Sengupta & Slater 2005). For a market pioneer a product can be so new and innovative that it can hinder or even prevent getting relevant customer feedback to guide the new product development process. We can ask how well start-ups can evaluate their upcoming target markets, particularly when some academics further suggest that strategic management literature tends to exhibit a "supply-side" bias, when examining the development of firms' capabilities and the nature of competition. "Focused on firms' activities and interactions, the literature has largely overlooked the role of the demand environment in which these interactions take place" (Adner 2002).

For a start-up company a new product development project is often a new business development project. Starting a new business requires entrepreneurial vision and ability to assess what is going on in the new marketplace; skills that can be very different from what is needed for a more traditional new product development project in an existing marketplace. Assessing the sentiments of a new and upcoming marketplace is difficult and even more so within radical innovations. In a pursuit of understanding a constantly evolving market, other organizations' knowledge and help could perhaps at least partially be of assistance, when one is developing a new product, or a service.

One apt partner and industry expert is the active investor. Why investors particularly could be in this position and even promote cooperation, is because

of the financial interest and grip they have over companies in their portfolio. In this study I will analyze the impact VCs can have on a young organization's market orientation and consequently on its revenue potential. The emphasis is on the intangible elements of cooperation, particularly market related information exchanged between venture capitalists and start-up companies and among start-up companies. Actual monetary investment's influence with all other tangible elements that investors potentially provide, such as office space and various administrational services are outside the scope of this study. Investor research is close to the researcher's heart, after a career in retail banking and telecommunications, with managerial positions in both.

1.2. Market Orientation in The Radical Product Realm

Let us now look at the tentative market orientation "myopia," when it comes to being market oriented, but with a radical product offering. We will also look at a way to define market orientation and how I will borrow from this definition to come up with the aim of this study. After this section we will discuss the differences between new product and business development, and state the overall research purpose in chapter 2.

A growing number of scholars have studied the early lives of technology-based firms. As was indicated, several studies report a firm's focus towards technology and their lack of market orientation (Myers & Marquis 1969, Pavia 1990, Sanchez & Elola 1991). Many organizations seem to evaluate their new products by a "gut feel" more than by using financial measures (Pavia 1990). Even though projects would initiate because of recognition of specific customers or market needs, there can still be a lot of "noise" in this information. Noise causes customer or market needs utilization to be difficult without further processing (Conway & McGuinness 1986).

Radical product innovations involve the development, or application of, significantly new technologies or ideas into markets that are either nonexistent or require dramatic behavior changes to existing markets (McDermott and O'Connor 2002). The presence or absence of current customers, who can capably articulate a need, largely determines whether sufficient momentum comes together behind a proposed innovation (Christensen & Bower 1996). When innovations are radical, the problem of not being able to rely on and build according to customers' perceptions has been noted (Bennett and Cooper 1982), Finally, Roberts (1990) points out that essentially only entrepreneurial

drives and technical capabilities precede the founding of a technology-based company.

What market orientation (MO) includes and entails is a stable academic hot topic. MO can be approached either operationally or from a cultural perspective, and performance can be measured objectively or subjectively (Gonzalez-Benito & Gonzalez-Benito 2005). Danneels (2004) has summed up some criticism of market orientation's role in new product development:

1. Firms are "held captive by their customers" (Christensen 1997);
2. A firm can lose its position of industry leadership when faced with certain types of technological change, because they listen too carefully to their customers (Christensen & Bower 1996);
3. A company can become "customer compelled," trying to fulfill every whim of current customers, when instead it should be vigilant for un-served emerging markets, while serving their current customer base (Day 1999).

Danneels (2004) interprets, however, that academics have most likely misstated these findings. Companies that focus on future customers rather than on current customers have a greater degree of radical product innovation (Chandy & Tellis 1998) and consequently, the right interpretation would be not to concentrate too narrowly on current customers. Narver, Slater & MacLachlan (2004) suggest that the misunderstanding is due to concentrating single-mindedly on responsive market orientation behavior. Responsive, customer-led (Slater & Narver 1998) market orientation is about discovering, understanding and satisfying the expressed needs of customers, and this is where virtually all empirical analyses focus. The other, proactive market orientation is where businesses attempt to discover, understand, and satisfy latent needs of customers. According to Narver, Slater & MacLachlan (2004) there have been some theoretical comments on proactive market orientation, but no systematic empirical analysis so far.

Sanchez & Elola (1991) suggest that there is "interplay between the pull of market place and the push of technology in the appearance of new products, with market forces prevailing, correlating predominantly with incremental innovations ... as incremental innovations are related to market demands, whereas radical innovations respond to technology." I propose that relative

weights change in the following manner (Figure 1), depending on how radical the innovations are.
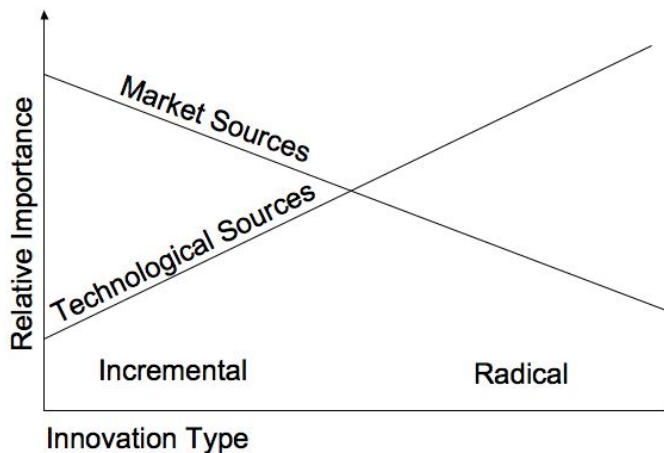
Figure 1. Market Sources vs. Technological Sources Feeding Innovation

The importance of technological sources grows the more radical an innovation is. In incremental innovations technological sources are less important in guiding innovations, because of the stable structures, dominant designs and clear business models that exist in more mature markets. Theoretically, what happens in this continuum is that the more innovation moves from incremental to radical, the more the market sources relative importance diminishes, and being market orientated is less valuable; there is no market pull. This inevitable conclusion I will question in this research.

Again, it seems that market orientation (MO) builds on a quantifiable, responsive market place that can be studied. However, in radical innovations, markets have to be more or less constructed using technology and emerging (latent) market trends, which either make or break the technological solution. In the extreme where technical solutions precede customer needs, decision-making could be steered by market research consisting largely of guided intuition, using industry experts and alternative future scenarios (Mohr, Sengupta & Slater 2005). In this environment, being market oriented can be

seen as a capability with many tacit elements; the more radical the new product or service is, the more elusive the new upcoming marketplace can be.

I argue that even though the importance of technology can grow substantially the more radical innovations are, this should not diminish the general role of market sources, in fact, on the contrary. In other words, even if market needs are not a substantial driver for an innovation due to its radical nature, market reactions still determine how the product succeeds, once it becomes available. Market response will be there (as is a perpetual craving for superior technology for that matter), even though we would not have immediate tools to acquire information from the marketplace to estimate its moods and reactions beforehand.

Market orientation and market creation efforts resemble each other, when innovations are radical. "Discovering how the market structure works, figuring out how the firm will participate in it in terms of what it will offer and how the firm will ally with other partners to complete the offering is a critical part of new market creation" (McDermott & O'Connor 2002). Being externally active can be important for both; in this respect market creation and market orientation are close to each other, a notion not often seen in MO definitions. Further, Tyler and Gnyawali (2002) define market orientation as a business unit's orientation towards customers, competitors, and technology and the use of customer, competitor and technological information in new product decisions. Part of the definition is inter-functional coordination that facilitates communication across departments and as a structural aspect of the organization closely relates to market orientation.

What this tells us is that on one hand literature suggests that a strategic balance between technology and markets is desirable. On the other hand, radical innovations make this challenging, since input from the marketplace is not necessarily readily available. In this dissertation I borrow from the market orientation definition above, placing inter-functional coordination in an inter-organizational context. Inter-organizational cooperation is tentatively employed as an alternative source, as start-ups try to evaluate their upcoming target markets.

2. Objectives and Research Approach

Now that I have stated the aim of the study in the introduction, I will first review the focus of the study in section 2.1. Then its objective, purpose and contributions will be examined more in depth in section 2.2, and in section 2.3 the overview of research approach will be discussed.

2.1. Focus of the Study

Start-ups usually have at least a business idea when they first get into contact with their potential investors. During the length of cooperation a venture capitalist can:

1. Help in setting up and running a firm and give administrational support
2. Help in exploiting applicable technologies
3. Help in building innovation's marketability

Administrational help is facilitative; venture capitalists' representatives either execute parts of organizational routines on behalf of the start-up, or train its employees. Technological help, such as an idea lab, can include assisting start-ups in reaching new technologies for further development and deployment. Help in building innovation's marketability, on the other hand, aims at enhancing the commercialization prerequisites of innovations. Improved market orientation leads to a better understanding of the marketplace and thus, increased revenue potential. My interest and focus lies in this third category.

Why am I interested in marketability? Henard and Szymanski (2001), while executing a meta-analysis on new product success, divided dominant drivers for new product success into four different groups of characteristics; product, strategy, process and marketplace[3]. Their conclusion was that the majority of previous performance oriented studies had had a somewhat biased emphasis by concentrating too much on process characteristics (marketing task proficiency, predevelopment task proficiency, technological proficiency and launch proficiency) as means of depicting new product success.

---

[3] More about this is in section 3.1. "Strategic Management Theories of Innovation and New Product Success and Failure Factors."

This emphasis bias is a consequence of the relative ease with which the owners and management of firms can internally control process characteristics. Findings implied that "ceteris paribus, placing more emphasis on marketplace, strategy, and product characteristics than on process characteristics would, on average, be more appropriate for augmenting success levels" (Henard & Szymanski 2001). McDermott & O'Connor (2002) back up this notion. Project management priorities of evaluation, monitor and control are in a minor role in comparison to concerns about managing the market, resource and organizational uncertainties and natural uncertainties associated with technical breakthroughs. Concisely, putting more weight on marketplace, strategy, and product characteristics can mean investing more in business opportunity assessment in general.

Innovation, as a foundation for new business enterprise, can come from internal or external sources (e.g. Van de Ven 1986). Narver, Slater & MacLachlan (2004) suggest that innovation orientation is more of an "inside-out" process, and market orientation just the opposite, an "outside-in" process. Narver, Slater and MacLachlan (2004) claim that if a business wants to maximize its economic value, it must be oriented to "finding needs and filling them," rather than "making products and selling them." Besides general approach to strategy and market/ technology dichotomy, companies vary by being either internally self-sufficient, or externally active in pursuing their goals. This has an effect on how they absorb outside knowledge, such as when developing new products. Internal orientation also concerns marketing, which in this case is typically directed more to the existing customer base (Nyström 1977, 1990). The more externally oriented, open and receptive organizations are, the more they can benefit from inter-organizational cooperation.

By combining the inward/ outward approach of companies with market/ technology dichotomy, I come up with two tentative and alternative styles for carrying out new product development projects:

1. Internal "self-sufficient," perhaps more technology driven approach to product development
2. More customer oriented, market driven external approach to product development

The more internally oriented product development approach relies on a company's internal strengths and perhaps also financially on a company's own cash flow. The more customer-oriented, external approach means active cooperation and sometimes alliances with outside constituents, such as customers, other value chain members and universities with the main incentive to seek synergy from participants and thus gain efficiency.

This paper excludes the influence of other firms on individual product and business development processes, but my assumption is that one should study VCs and start-ups by combining two different, but intertwined perspectives:

1. Individual product development perspective (NPD), and
2. Business development perspective (NBD)

Reasons are ample. First, VC interaction gives SUs an opportunity to concentrate on assumed core capabilities (e.g. Andreu & Ciborra 1996) to build their business. Focusing solely on the individual product development, instead of looking at start-up's business as a whole, would therefore be somewhat narrowing. Second, start-ups' product launches often mark the beginning of their cash flow and first revenue stream; therefore product development and business development are, in fact, the same thing. Third, Burgelman (1983) and McDermott & O'Connor (2002) found that when innovations are radical, the type of required marketing and manufacturing expertise is more broad-based in nature anyway, making the whole activity more business than product development like. In sum, the inter-organizational cooperation between a VC and an SU is not limited to product development and therefore the more broad-based business development perspective supports the research focus of this study.

Approach to new product/ new business development is naturally a combination of many different factors that influence a company and its decision makers, including its core values and corporate identity. Incumbents also constantly monitor their business environment and some execute systematic short and long-term trend analysis to understand megatrends in existing or upcoming business environments. "To begin to see the future, the best starting point is a solid understanding of the present and its inherent and often unstable assumptions. Seeing the future requires an understanding of the current market, including needs, trends, demographics, and emerging or

changing paradigms. It also requires understanding the limits of technologies as well as potential changes in assumptions that could develop in the course of decade-long research and development programs" (Solomon at Mohr, Sengupta & Slater, 2005, page 21).

Despite the nature of innovation, any threads of knowledge of the upcoming marketplace should be desirable. This leads me to come up with two tentative ways of gathering market information, either directly or indirectly. Direct market information comes by traditional and proven tools such as market research, lead user analysis and focus groups. Indirect market information comes from sources such as trend analysis, ethnography, etc., and perhaps also from interaction with external constituents. Indirect market information could be particularly important within radical (discontinuous[4]) innovations, since gathering market information otherwise is so tricky. The following questions arise:

1. What kind of role do outside constituents have as sources for indirect market information, and
2. What are outside constituents' abilities to provide support, when a firm is struggling to identify relevant customer needs and seeks solutions to satisfy them?

Figure 2 shows a description of these two sources of information[5].

---

[4] More of the definition in chapter 3.
[5] In order to simplify, architectural and process innovations are not included, more on these in chapter 3.

Start-up's NBD efforts with data, experiences, feels, intuition and assumed general understanding of the marketplace

Available ways to gather external market information, depending on the type of innovation

Incremental

Discontinuous

Assessment of customer needs by market research, focus groups, usability testing, etc

Assessment of customer needs by observation, trend analysis, ethnography and also through other firms, etc

Figure 2. Tentative External Information Sources for Incremental and Discontinuous Innovation

The discontinuous innovation line is not even because the level and influence of other firms as a source is under scrutiny. In conclusion, by taking the marketplace, strategy and product characteristics as dominant drivers for new product success, I will concentrate on how a VC can help an SU better understand and interpret the intended marketplace, and if it can use this inter-organizational information towards increased revenue potential and commercial success.

2.2. Research Objective and Contribution of the Study

A VC can use a business model (e.g. Amit & Zott 2001) where inter-organizational communication is active and includes concrete modes of interaction between financed companies (Gupta 2000)[6]. For one thing, VCs often have knowledge, theoretical skills and connections that have accumulated over time.

One way to approach the level of impact of inter-organizational cooperation, the objective of this study, is to examine the level of "knowledge

---

[6] This is historically regarded particularly a west coast U.S. phenomenon. Venture capitalists on the east coast have been seen more traditional and thus financially oriented.

transformation" that takes place between a VC and an SU[7]. Lower levels of successful knowledge transformation means that beneficial (existing and explicit) information is transferred between organizations. In higher levels of knowledge transformation shared resources can theoretically grow into capabilities, enabling competitive advantage for participating organizations, and particularly for start-ups in my research context. Under VCs' supervision cooperation could, in favorable circumstances, bring increased business opportunities due to the knowledge transfer. However, information dissemination is not enough alone, information must be internalized into SUs' operating routines thus making changes in how business is conducted, for the transformation to complete.

When an organization has products already out in the marketplace it can draw conclusions from end-users, distributors, and suppliers on how they find the product and/or the marketplace. Before the product launch, the situation is trickier, limiting the sources for operable market information. A venture capitalist could hypothetically make a substitute source, since it has the advantage over a traditional corporate financier in the freedom to choose how to interact with the investee during the length of the investment. If a VC chooses to be "hands-on" it should, with the insight in a particular industry, be in a position to share new tech trends and business models with its portfolio. However, the question is if being involved means that the cooperation could also accumulate to a level that would enable SU's business opportunity re-assessment and as a consequence, new competitive advantage.

The overall purpose of this research is to explore and to understand,

How venture capitalists and start-ups cooperate and how cooperation 1) between venture capitalists and start-ups and 2) between start-ups, affect start-ups' market orientation in the context of radical innovations?

Companies have a vision of their future markets when they start. The task is to find out if cooperation steers this vision and subsequent customer, competitor and technology (MO) decision-making. Research purpose is covered by three manageable research questions:

---

[7] Knowledge management theory deals closely with data transformation and information processing. E.g. Bartlett and Ghoshal (1989) introduced a data-information-knowledge-wisdom continuum.

1. How do VC-SU cooperation processes evolve?
2. How does VC-SU and SU-SU cooperation influence participants working routines?
3. How does cooperation shape SU's market understanding and thus, business opportunity?

The first research question relates to the consistency and depth of inter-organizational cooperation; the goal is to achieve a more profound understanding of the collaboration between VCs and SUs. The second relates to the consequences of cooperation, among other things the level of information and knowledge that has been gained due to it. The third research question concerns the results of cooperation; to what extent it has improved the marketability of the SUs' products and brought competitive advantage to participating organizations.

I will depict my study purpose and study design with two figures that follow. The first one is the framework of study purpose (Figure 3) below, and the second one is the case study design (Figure 4) in the next section. Venture capitalist 1 and 2 belong to the same investment pool and finance the operations of both start-ups 1 and 2. Due to the fact that the SUs belong to the same portfolio, they have potential access to each other's business practices and information on overall progress, making their cooperation possible. This type of horizontal cooperation and idea exchange between SUs has particularly in the incubator scene been considered one of the cornerstones of successful operations. Horizontal cooperation has also been considered one of the strengths of Japanese Keiretsus in their corporate alliance structures (e.g. Zhang 2007).

So, rephrasing the introduction, the aim of this study is to find out how vertical interaction between VCs and SUs and horizontal interaction between SU 1 and 2 affect SUs in terms of their market understanding and business opportunity re-assessment. Market understanding and business opportunity re-assessment are deliberately chosen to evaluate the technical side of market orientation; how to be proactively market oriented and reveal latent customer needs, when these are not explicitly available for measurement.
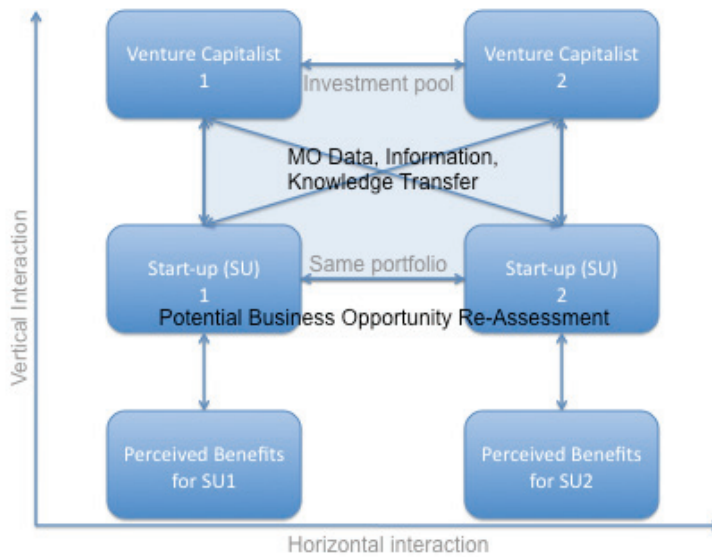
Figure 3. Framework of Study Purpose

SUs interact with other organizations while working on their business development and as part of the investment portfolio this may include participating VCs and SUs. VCs belong to the supply chain, the vertical dimension, and start-ups often representing different markets altogether, belong to the horizontal dimension (e.g. Doyle 1995). If information exchange takes place, it may, or may not strengthen participating organizations understanding of their marketplaces and lead to concrete actions based on newly learned knowledge. Chances are information exchange takes place formally or informally in various social settings such as VC arranged events and SUs' management meetings. Information can also be distributed without physical interaction via emails, guidebooks and the web, among other channels. Vertical cooperation between a VC and an SU can come naturally, due to the financial aspect of things, after all an SU is burning VC's funds and some control mechanism is always in place. Horizontal SU-SU cooperation lacks this, but, again, it's been a favored way of numerous incubator practitioners to assemble the financed organizations together to boost their idea exchange and networking to increase chances for commercial success (Al-Mubaraki & Busler 2013).

24

By addressing both the VC-SU collaboration and the SU-SU collaboration this study can make several contributions. First, organizational roles are investigated at a time when company specific skills, capabilities and competencies are still evolving. Studies concentrating on alliance performance and particularly venture capitalist/ start-up relationships have so far largely given attention to new product development (NPD) performance, in other words how successful and efficient cooperation has been regarding speeding up the new product development process and time to market. Less attention has been given to the changes that cooperation can cause in SUs business opportunity.

Second, by offering deep insight into the cooperation and to the potential of exchanged resources, contribution of this study is manifold. For theoretical framework building it enables a detailed classification of the researched phenomenon through a wide literature analysis from many research traditions. It adds to the demand induced innovation theory discussion, new product development management and to success and failure factors paradigm. Further, it brings an inter-company aspect to the discussion of market-orientation and its role on new product success.

For research designs it brings a process view and exploits a quasi-longitudinal case analysis by studying how cooperation evolves before, during and after the interviews. For conceptual frameworks it brings more weight on demand and revenue elements and makes them more operational. It also deals with demand and revenue in an empirical context, where in strategic management literature they have traditionally had less weight. It discusses the relational and non-relational elements of relationship management and engages elements like commitment and trust with complementary and idiosyncratic resources that all contribute to and facilitate competitive advantage to occur. It also adds to the new product development and new business development discussion and to the role of market orientation and market creation within radical innovations.

Finally, the study utilizes the knowledge management tradition in an empirical context and comes up with a tool for practitioners, where traditionally tangible and operational tools have been scarce.

2.3. Overview of Research Approach

 To be able to answer the research questions, in-depth kind of information is required of the VC-SU relationships. An ideal design would include at least two VCs with different business approaches: high collaboration and more "hands off style" with their SUs. It would also be important to be able to study the relationships for some time in order to address the postulated changes in market orientation and performance.

These requirements lead to the construction of an instrumental multiple case study design (Stake 1995). Since the focus of the study is known in advance and based and designed around established theories the cases have an instrumental role. The cases are secondary to understanding the chosen phenomenon and the phenomenon will be researched by seeking answers to research questions by executing a two VC two SU multiple case research.

"Maximum variation" between the two VCs will be sought through careful case selection, so the analysis method is comparative, where patterns and differences are sought from the empirical data and matched with the idealized patterns, which are preliminary guiding hypotheses of the patterns. Idealized patterns evolve from the theoretical groundwork, which includes sorting applicable research traditions, selecting relevant theories and filtering them to work on operable research domains based on the theory and my own beliefs (e.g. Yin 2003). As Marshall & Rossman (1999) clarify, it is essential that the researcher points out that the guiding hypotheses are merely tools used to generate questions and to search for patterns, and may be discarded when the researcher finds other exciting patterns and phenomena.

The first VC is known for actively taking part in its start-up portfolio's activities and holding a seat on the board of management of one participating start-up. Second VC (an investment bank with a VC arm) is considered to have a more traditional and perhaps less "hands-on" approach in taking part in start-ups' business practices. My case design is embedded, meaning that the unit of analysis is the relationship between a VC and an SU and research questions work as subunits in understanding more about the phenomenon. The fact that the cases are studied from multiple viewpoints, that both VCs fund both technology driven start-ups and all companies know each other, and that the study has comparative but also complementary elements since the

companies together provide with a more comprehensive view of cooperation patterns, make the material richer and enables deeper results with the data at hand (See, e.g. Mitronen & Möller 2003).

Research design (Figure 4) is also quasi-longitudinal and abductive. The quasi-longitudinal structure of cases allows me to retrospectively look at two time periods with multiple observations. The open interviews cover the timeframe from cooperation start to when the interviews take place, and I also cover both exits when corporate relationships dissolve via secondary sources of data, such as financial publications. Within the abductive study framework the theoretical framework, empirical fieldwork and case analysis evolve simultaneously. Guiding hypotheses work well within the abductive study framework and pattern matching the idealized patterns with themes and patterns found in the data is, according to Miles & Huberman (1984), a mode of cross-case analysis where the researcher can establish the range of generality of a finding and, at the same time, pin down the conditions under which that finding will occur.
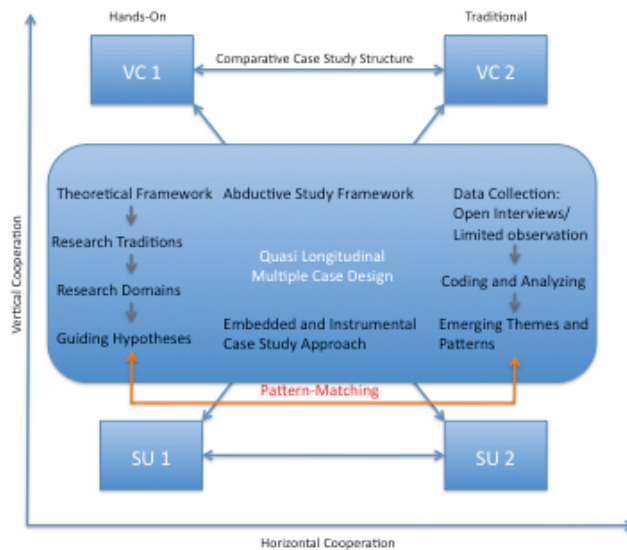
Figure 4. Case Study Design

Methodology will be discussed in greater detail in chapter four. Following McDermott & O'Connor's (2002) rationale, participating firms' selection process may introduce some bias in findings and because projects were handpicked by one of the VC's, it is likely that they were of higher profile and

strategically more critical than projects that might have elevated through random sampling. This was, however, not considered an issue, since even if this was the case it could in fact be better for the research, because VC differences would come out stronger. Further, because study observes ongoing projects at the early stages of the life cycles of new companies, it is not possible to gather objective data of the commercial performance of the products. Due to this, and knowing the magnitude of variables that influence the commercial performance of a company, performance measurement will be subjective and based only on opinions of the interviewed. This, together with case selection and data collection methods will be discussed in greater detail in section 4.1. "Study Context."

3. Review of Literature

The role of VC and start-up collaboration in advancing the market orientation capability of the SU firms in the context of radical innovation is a broad, multi-layered and complex phenomenon. Within the abductive study approach it became apparent early on that a wide multidisciplinary literature pool would be helpful in understanding this phenomenon and therefore a vast effort was placed to examine a varied array of relevant schools of thought for the study. These include innovation management and new business and product development studies complemented with market orientation research and studies of inter-organizational interaction and knowledge transfer. Resource-based view will be used as an underlying theme, see Figure 5. The examination of the relevant literature should not only support the theoretical analysis, but also help in constructing interesting results and drawing implications from the pursuit of answering the study questions via matching the theory driven guiding hypotheses with the findings of the empirical research.
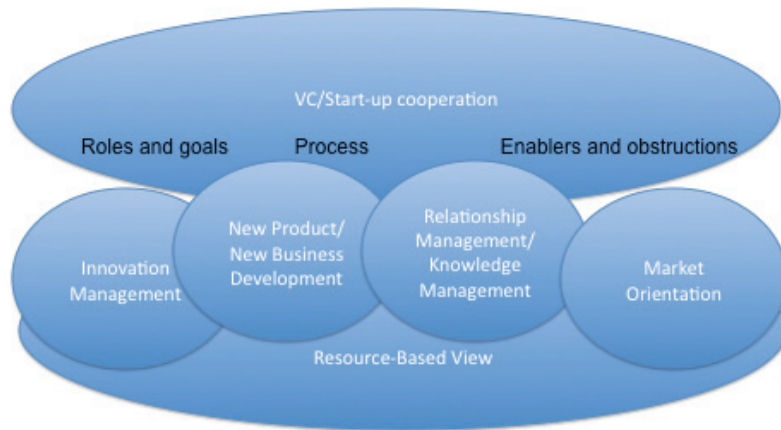
Figure 5. Relevant Schools of Thought for the Study

In this chapter I will explore literatures from each key school of thought (tradition) in respective sections that follow. At the next section "Strategic Management Theories of Innovation and New Product Success and Failure

Factors" I will emphasize differences between incremental and radical innovations and look for dominant drivers for new product success. Section 3.2, "New Product and Business Development," seeks definitions for radical innovation and looks at new product and business development as separate processes. In section 3.3, "Market Orientation," I build the definition of market orientation emphasizing the radical product realm, and discuss the differences between an existing marketplace and an evolving marketplace. Section 3.4, "Relationship Management," looks at cooperation as a type of alliance, discusses the horizontal and vertical levels of relationships, and defines efficiency and effectiveness as separate goals.

In section 3.5, "Knowledge Management and Knowledge Creation," I discuss the knowledge creation process and knowledge assets as components. In section 3.6, "Resource-Based View of Organizations," I look at the definitions of resource, capability and competence and discuss descriptive and prescriptive components of resource-based thinking. Here I also delve into customer coproduction vs. inter-organizational interaction. Section 3.7, "Technology Based Enterprises and VC Financing," discusses VC portfolios and VC's suitability for this research, and this is where I build four guiding hypotheses that should materialize in order for the hands-on approach to be beneficial in the research context. Finally, section 3.8 is a brief conclusion of previous literature, and it also sums up the theoretical framework of the study and comes up with its research domains.

As pointed out the resource-based view works as an underlying theme throughout the theoretical chapter. Combining this many schools of thought to one dissertation is challenging, but as Marshall & Rossman (1999, page 43) point out "a thoughtful and insightful discussion of related literature builds a logical framework for the research that sets it within a tradition of inquiry and a context of related studies. The literature review serves four broad functions. First, it demonstrates the underlying assumptions behind the general research questions. If possible, it should display the research paradigm that undergirds the study and describe the assumptions and values the researcher brings to the research enterprise. Second, it demonstrates that the researcher is knowledgeable about related research and the intellectual traditions that surround and support the study. Third, it shows that the researcher has identified some gaps in previous research and that the proposed study will fill a demonstrated need. Finally, the review refines and redefines the research questions by embedding those questions in larger empirical traditions."

3.1. Strategic Management Theories of Innovation and New Product Success and Failure Factors

Invention is the formulation of new ideas, a new object, process or technique. "Firms that invest heavily in R&D reap the benefits of invention: many patents and many published papers. But that's where it ends unless they also know how to innovate" (O'Connor, Leifer, Paulson & Peters 2008). Innovation is generally understood as the applicable introduction of a new thing or method, the embodiment, combination, or synthesis of knowledge in original, relevant, valued new products, processes, or services (Luecke & Katz 2003). It is anything new to a culture, whether it has been adopted, or not. Term innovation can mean both the innovation process and its outcome, the resulting changes (Nyström 1990).

Innovation results from creative ideas that are successfully implemented (Tushman & O'Reilly 1997). In creating and establishing something, which is new and potentially useful, an innovation can override existing products and offer a clear competitive advantage (Lindman 1997). New product development, when successful, brings innovations into the market place. Product development and innovation is not the same thing, though. New product development process can be an innovation process, but not always so, because not all product development is innovative. At the same time an innovation does not have to be a new idea either, but merely an adoption applied in a new context (Schroeder et al, 2000, Shaw, Peel & Burgess 2004).

Innovation management is widely recognized as a cumulative process that includes idea generation, idea evaluation, product development and testing and product launch stages (e.g. Booz, Allen & Hamilton 1982, Crawford 1992, Troy, Szymanski & Varadarajan 2001). NPD projects are not necessarily always linear and straightforward processes though, but filled with alterations. According to Sanchez and Elola (1991) the most frequent reasons for alterations were to improve quality and reduce costs, solve technical problems, meet requests from the customers and competition, and simplify design.

There are several ways to classify innovations (See e.g. Schumpeter 1934, Abernathy & Utterback 1978, Anderson & Tushman 1990, Green, Gavin & Aiman-Smith 1995). One approach is to divide them into process, incremental, architectural, or discontinuous innovations (Tushman & O'Reilly 1997).

Process innovations aim to enhance firm's production process and applicable technology. Incremental innovations are small product modifications and innovations that bring additions to a firm's product line. Architectural innovations reconfigure existing technologies in new ways and discontinuous (radical) innovations are something totally new, not only to the company, but often also to the marketplace. Finally, "the effects" of product[8] and process innovations are reflected in changes in product's functional performance and in product cost (Adner 2002).

In contemporary management literature the word 'discontinuous' has come to depict the radical nature of innovation. I will use the words 'radical' and 'discontinuous' interchangeably, even though they are not synonyms. A radical product innovation is a new product that incorporates a substantially different core technology and provides higher customer benefits relative to previous products in the industry (Chandy & Tellis 1998, 2000). Discontinuous innovation, on the other hand, can mean two things. It can refer to innovations that generate market and/or technological discontinuities and subsequently how the innovations affect the abilities of incumbent firms to adapt and respond to these changes[9]. When a product is commercially discontinuous, customer reception can differ substantially between individual customers and various customer segments, and differ from what developers expected. During this "era of ferment" there is significant technological variation and competition by incumbent and entrant firms in the technology space.

Discontinuous innovation can also depict the way innovation affects developing organization's organizational structure. Tushman & O'Reilly (1997) point out that while one can manage incremental innovation within the existing organization, it is not the same with architectural (reconfiguring existing technologies) and discontinuous (based on new technology) innovations. Architectural and discontinuous innovations need organizational change and although many firms have technological expertise to implement streams of innovation, their internal forces of stability often hinder the exploitation of this expertise.

---

[8] Product innovations cover here also other innovation types, such as service innovations.
[9] Veryzer (1998) classifies innovations along the dimensions of newness of product capability and newness of technological capability. Products can be commercially and/or technologically discontinuous. Veryzer, R, "Discontinuous Innovation and the New Product Development Process," Journal of Product Innovation Management, 15 (July) 1998: 4: 304-321.

As an example of earlier innovation studies, Sappho research project is outstanding. It was originally a business-to-business study, carried out in England in the end of the 1960's and during the 1970's. Sappho –project is particularly known for the "constellation principle," which states that commercial success is an outcome of a combination of many factors. By this, it stressed the importance and maintained equilibrium of firm's internal network, external user collaboration and external sources of technological knowledge; so called balance theory. Academically the project is famous for being the one where pair comparison case study analysis method was developed. According to the results, successful innovation projects have (Rothwell et al, 1974),

1. Profound knowledge of user needs
2. Larger emphasis on marketing and publicity
3. Greater usage of external technology and scientific approach
4. People responsible possessing greater authority and belonging to senior[10] management
5. Development work carried out more efficiently and with lesser changes in the production phase.

After Sappho there have been several other empirical studies with analogical results (e.g. Cooper 1979, 1987 with NEWPROD and Maidique & Zirger 1984 with SINPRO).

Henard and Szymanski's meta-analysis (2001)[11] came up with the following dominant drivers for new product success of a firm,

1. Market Potential
2. Dedicated Human Resources
3. Marketing Task Proficiency
4. Product Meeting Customer Needs
5. Product Advantage
6. Predevelopment Task Proficiency
7. Dedicated Research and Development (R&D) Resources
8. Technological Proficiency
9. Launch Proficiency

---

[10] This is particularly a British phenomenon, not anticipated to exist in, say, IT sector in the Silicon Valley.
[11] Some 60 studies on new product performance, executed in various product classes, completed before January 1999, and reported one or more antecedents to new product success.

10. Order of Entry
11. Technological Sophistication of the Product

Authors further placed these dominant drivers into a more concise taxonomy, taking advantage of the frameworks they found in the literature (e.g. Cooper & Kleinschmidt 1987, Montoya-Weiss & Calantone 1994). The four broad-based categories were:

1. Product Characteristics (Product Meeting Customer Needs, Product Advantage, Technological Sophistication of the Product)
2. Strategy Characteristics (Dedicated Research and Development (R&D) Resources, Dedicated Human Resources such as skills, know-how, capabilities and competencies)
3. Process Characteristics (Marketing Task Proficiency, Predevelopment Task Proficiency, Technological Proficiency, Launch Proficiency)
4. Market Place Characteristics (Market Potential)

Earlier studies support that customer need clarification (product characteristics) can be a success factor. Sappho study came to emphasize more profound knowledge of user needs and Henard & Szymanski's meta-analysis points out product characteristics and market place characteristics, among others. A customer can have your next new product idea and hearing the evolving voice of customer (VoC) helps in identifying customers' problems and needs that are unmet, or even unarticulated. There is no standard methodology, however, for revealing VoC. In consumer business it is about working closely with customers and listening to their problems. In b-to-b business, it involves understanding customers' operation and workflow (Cooper, Edgett & Kleinschmidt 2002).

3.2. New Product and New Business Development

Let us look now at different types of innovations and particularly in markets that are not clearly defined. I will also talk about the tacit component of decision-making, and on the subject of making informed guesses of customer and competitor behavior.

Tools and techniques associated with good project management in incremental NPD are not necessarily easy to apply to radical innovation projects. The

following relies heavily on McDermott & O'Connor (2002), who suggest that even though cross-functional approach and the accompanying stream of research has helped to improve our understanding of the NPD process, it has in practice focused on the development of products that are of incremental, evolutionary nature. Traditional approaches such as the Stage Gate Model[12] are based on planning and controlling resources built on clearly defined objectives, a set schedule and a known budget. The authors point out that it is unclear what the landscape for radical NPD looks like, much less if these popular management practices are at all appropriate in developing radical products where uncertainty, risks, and potential rewards are much higher. Finally, they state that there is growing evidence (Aitsahlia & Johnson 1995, McDermott & Handfield 2000, Riedel & Pawar 1994) that these common practices may be detrimental in some environments. In the search for speed to market, researchers and practitioners may have been too quick to generalize the utility of these practices across very diverse environments. Gaining a better understanding of the landscape of radical NPD is a critical first step in being able to judge the appropriateness of these common practices in this turbulent environment.

Researchers are far from a consensus regarding a formal definition of radical innovation (Dewar & Hutton 1986, Ehrnberg 1995, Ettlie, Bridges & O'Keefe 1984, Green, Gavin, Aiman-Smith 1995, McDermott & O'Connor 2002). McDermott and O'Connor (2002) divide radical innovations into two different entities,

1. Competence enhancing innovations that strengthen firms position within familiar markets by bringing breakthrough technologies and advancing the state of the art with big leaps.
2. Innovations for which the market is not clearly identified or developed

Project management varies whether the market exists or requires development. When an established market exists, inertia provided by mainstream operating units may cause prominent organizations to manage their projects sub-optimally, because of threat of cannibalization or familiarity with the current business model. In completely new markets the project may proceed more slowly than planned due to the lack of attention to market

---

[12] See, e.g. Cooper, "Product Leadership," Perseus Books 2000.

development activities that companies traditionally do not expect their participating teams to perform.

It is worth mentioning that while latter innovations are riskier and more uncertain, they are the ones with potential to move organizations in such new directions that provide rich platforms for growth (McDermott & O'Connor 2002). In addition, presumed high relative share of innovations without clear identified market place (7 out of 12 in McDermott & O'Connor's 2002 sample) make market orientation's special role, significance and principle, even more exciting.

Literature doesn't give clear indications of the difference between new product development and new business development, or what new business development in essence is. One way to make a distinction between the two is to divide the nature of NPD by the level of unknown involved in the process. It can tentatively be said that the higher the uncertainty the more it resembles new business development. Better resources and deeper competence improve success rates, but a start-up's dominant logic is often just building up and company specific mental maps are evolving. Loch, Solt and Bailey (2008) come up with three external problem areas for an innovation process with higher uncertainty, 1) customer need, 2) industry readiness and 3) product functionality. When radical products are created to new markets, not even the target users necessarily know what their needs are, thus rendering the application of a pragmatic NPD process difficult, and making the process perhaps more new business development type in nature.

Figure 6, below, is a tentative way of representing the basic difference between a new product development project and a new business development project. New product development and the toolkit marketing offers to it, work best within incremental innovations, i.e., innovations with which the technology and the marketplace are already established. New product development works also when the technology is new but the market is established, and further, a company can try its wings with a proven technology and their tested marketing practices in a completely new market and see, if the previous practices carry over to the new market. The situation is, however, significantly different when both the market and the technology are new. There is a chance that traditional common practices will not work under these circumstances and a company has

to look elsewhere to finalize and optimize their product offerings for the new markets.
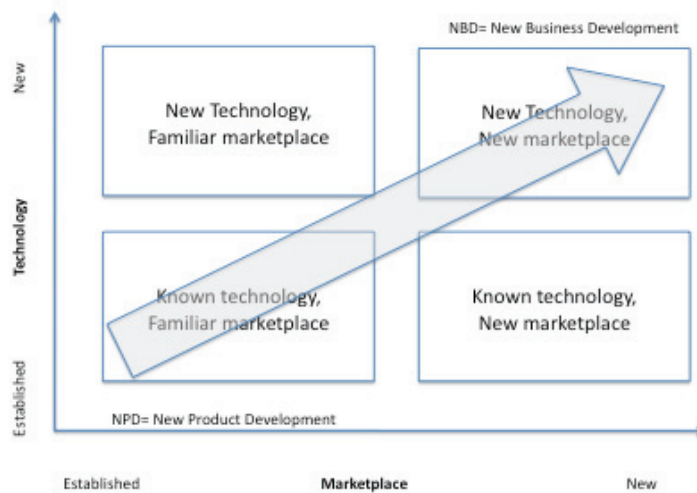
Figure 6. New Product Development Vs. New Business Development

The arrow depicts how at the lower left corner, the common NPD practices are at their strongest, but as the arrow moves from established to new, the elements of the unknown and a more all-round new business development gain greater foothold.

Companies often can't carry out innovation processes without reaching outside. If the upcoming marketplace can be defined, then the natural source of information is customers. Bettencourt (1997) argued that customers have three important roles as partial employees of the firm: 1) customers as promoters, 2) customers as human resource, and 3) customers as consultants. By utilizing the two latter roles, innovation process can be carried out with customer co-production. Customers are a great asset for the company and customer co-production is essential for bringing in "the voice of the customer," when there is a customer base to draw from. Besides having customers and outside technology, there are also other sources to work with. Chesbrough (2003) took companies' need for external search a step further by introducing the concept of open innovation. It underscores the importance of broad-based

external search and subsequent integration involving customers, suppliers and complementors. However, it is not just a matter of searching for inventions/innovations that represent new possibilities. Frequently it is a matter of combining complementary innovations so as to create a solution to a customer problem (Chesbrough 2003, Teece 2007).

Open innovation means a mental step towards finding systematically what the external business environment has to offer. Teece (2008) talks about sensing, as part of his dynamic capabilities concept. Sensing (and shaping) new opportunities is an activity that deals with scanning, learning, creating and interpreting, and investing in research is usually a necessary complement to this activity. To identify and shape opportunities, enterprises must constantly scan, research and explore across technologies and markets. Besides investing in research activities and the probing and re-probing of customer needs and technological possibilities, it also involves understanding latent demand, the structural evolution of industries and markets and likely supplier and competitor responses.

There is a significant tacit element in this process. Entrepreneurs and executives are forced to make many informed guesses about customer and competitor behavior, as well as the behavior of costs, among other things. Designing a business plan takes a keen understanding of customer needs and customer willingness to pay (Teece 2008). This is however, where strategic management stops, with very little instruction on how to execute this in practice, i.e., how to find out more about upcoming customer reactions beforehand in a marketplace where latent demand is prevailing.

3.3. Market Orientation

This section discusses how the concept of market orientation has been polarized and makes an attempt to redefine market orientation in the context of a new and unproven marketplace. Within radical innovation, the upcoming marketplace can be elusive.

Narver and Slater (1990) have conceptualized market orientation as a composite of three behavioral components:

- Customer orientation (CU)
- Competitor orientation (CP), and

- Inter-functional coordination (IC)

If the level of market orientation (MO) is low, it can be described as product orientation. At the intermediate level, it is customer orientation. A highly market-oriented company takes into account all these components. The following relies heavily on Tyler and Gnyawali (2002), pointing out that Gatignon and Xuereb (1997) have broadened the focus of MO research by arguing that technological orientation is a key attribute of technology-oriented firms' success in new product development and should be included as a dimension of MO. They proposed that inter-functional coordination is not a component or dimension of MO, rather a structural aspect that facilitates communication and coordination between a firm's different functions.

Profound understanding of one's marketplace is a resource. Kohli and Jaworski (1990, page 6) imply in their formal definition that "Market orientation is the organization wide generation of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across departments, and organization wide responsiveness to it." Even how important market orientation is considered to be theoretically, Slater and Narver (1994) found that it explains a greater proportion of variation in performance of firms operating in low market growth and low technological environments than of firms operating in high growth and high technological environments. Also, Jaworski and Kohli (1993) argue that in turbulent industries there are alternative avenues for gaining competitive advantage and that the importance of market orientation is smaller (Tyler and Gnyawali 2002).

Roberts[13] (1990) points out that essentially only entrepreneurial actions and technical capabilities precede founding of a technology-based company. Engineering and technology are thus the solid forces that founders of these companies are initially primarily oriented toward, not sales and marketing. He suggests, however, that there is a later evolution occurring towards marketing when firms mature, if they survive in their emerging businesses.

In Figure 7, below, Roberts (1990) depicts this controversy with market orientation. The market orientation arrow on the left has to do with company success in the later stages of a company's lifecycle, together with effective

---

[13] A hypothesized model for technology-based companies.

product development. Market orientation, however, is not part of the founding of a technology-based company, nor is it part of the growth of such a company. It is the technical capabilities and entrepreneurial drives that lead to establishing a tech-based company; product development is a consequence of a product idea. Thus, marketing and market orientation do not play a clear role in the earlier stages of a tech-based company, according to Roberts.
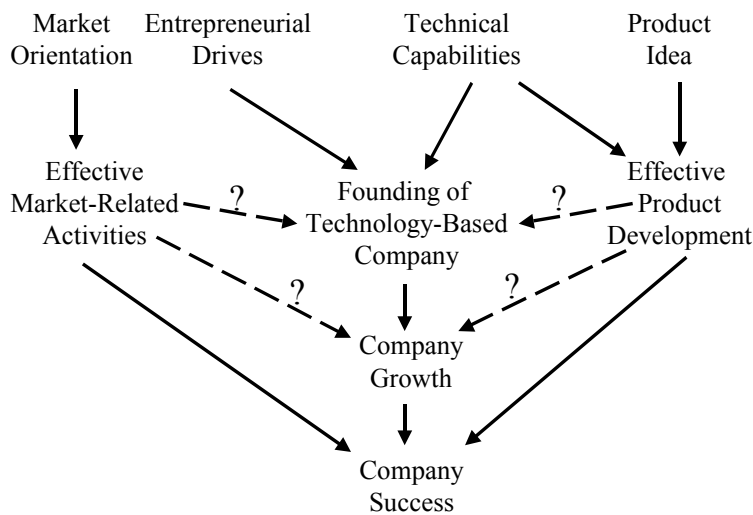
Source: Roberts 1990

Figure 7. Partial Model of Evolution of the Technology-Based Company

The whole concept of market orientation (MO) has been somewhat polarized ever since it started gaining larger interest in the early 1990's. Narver, Slater and MacLachlan (2004) note that there are two different schools of market orientation. One of them states that being market oriented is associated with superior performance in a combination of profitability, sales growth, and new product success. The other is the school of criticism, which is based on empirical measurement. Its common theme is that there is a penalty - for both business and society - if businesses only respond to customers' wishes. Brownlie (1987) brought up some academic questioning of the values of marketing orientation and its potential caveats to new product development. He found two key issues of fundamental concern to strategic management:

1. The domination of firm's research strategy by market considerations undermines the firm's innovative capacity in the long-term, and

2. The customer is not a reliable source of innovative product ideas

Bennett and Cooper (1982) suggest three reasons for this "customer unreliability":

1. Consumers' perceptions of their needs are restricted to the familiar
2. Consumers' ability to express their needs, particularly when they do not know what is technologically feasible, is limited
3. Because of the dynamic nature of these expressed needs, they may well have changed by the time a company designs, tests and manufactures the new product

Roberts (1990) argues that many technology-based companies "presume" market needs and base them on their own prejudices, or "feel" rather than probe their potential customer base's reactions while processing innovations. Because of the technical competence of these entrepreneurs and the high regard on which they are held in their technological field, this feel can become a legitimate and sufficient basis for producing and selling a product or service. In other words these presumptions and feels are facilitated by companies' technical competence, often so overwhelming that it brings them sufficient understanding, if not from markets' shifting needs specifically, but their particular business area in general.

McDermott & O'Connor (2002) have observed that even a familiar marketplace is not always enough to secure success, because in some cases it can give an assumption that the market will clamor for the technology even if new usage requirements are less convenient than customer's current situation offers. There is also a lack of consideration of the level of investment required to develop a market understanding to sufficiently build demand. In these cases the promises of the big market potential that drove the project at the outset can fail to materialize.

I am interested in this "technical side" of market orientation, i.e., how to increase the level of market understanding by gaining crucial knowledge and turning it into concrete actions in varying market conditions. Market orientation is undoubtedly true to its name. When there is a market, one can be market oriented also literally by researching and learning about one's marketplace. When there is no market yet, market orientation morphs

technically into something different, something alternative. Researchers talk about being proactive (Narver, Slater & Lachlan 2004), concentrating on future customers, instead of existing ones (Chandy & Tellis 1998), and the infrequency in utilizing market research (Leifer, McDermott, O'Conner, Peters, Rice & Veryzer 2000, Robinson & Chiang 2002).

Tentatively saying, market orientation's role goes hand in hand with marketing's general role within innovation. O'Connor, Leifer, Paulson and Peters (2008), as part of their discovery, incubation and acceleration model for breakthrough innovations, discuss marketing's role in the innovation process. They state that the process of scanning externally for megatrends through the venture capital community, universities and technical conferences, helps the discovery function (opportunity identification) identify growth platforms for the future and influence the development of the company's strategic intent. They define marketing activities as ranging from market research to advertising, branding and sales. Their incubation process (market exploration, new business creation) takes a proactive hands-on approach in creating new market spaces by crafting value through novel technologies, delivery systems, or other discoveries that may not have been possible before. It involves envisioning new value chains and convincing other parties to participate.

This leads me to an attempt to describe market orientation in a new and unproven marketplace as consisting of skills to understand and take advantage of the marketplace's upcoming functionality and dynamics through visioning future trends better and faster than competition. Beyond this, there aren't many paths to follow in securing applicable market data for technology based radical innovations. That is, before the new product launch and subsequent feedback from early users, which will then determine a potential success or failure.

McDermott & O'Connor (2002) discuss the concept of market creation. Apparently market creation is more about stretching the company competency when moving to a new market area. While it is about discovering how the new market structure works, it indirectly shares the orientation toward future consumer need clarification. Market creation can in this context be, perhaps, compared to new business development; they both share the idea of stepping into the unknown, either by starting something completely new, or stretching into a new market area. Besides sociology driven attempts to understand

differing customer environments[14], there are no known tools for practitioners to prepare the company for the new market other than strengthening the company's dynamic capabilities to better handle the process of moving to new markets in general.

In conclusion, MO's role depends on the technological orientation, the domination of technology, and how radical the product is. The radical nature of a new product innovation brings in the issue of market discontinuances; is there a dominant design and therefore an existing and researchable marketplace? Or is there an era of ferment, waiting for the dominant design to resurface and making the marketplace difficult to draw conclusions from? Figure 8 depicts this market discontinuance. In the same vein as Figure 6 depicted the new product development vs. new business development, the figure below shows how in an established marketplace there is a dominant design and traditional means are available for marketing intelligence. At the lower left the marketplace is definable and therefore the traditional choices to be market oriented are available. The situation gets more complicated the more the arrow moves from the lower left to the upper right. When the marketplace is new, customers and competitors are not yet definable and to be market oriented can mean activities such as visioning future trend alternatives, using proactive sociology driven tools and trying to get other organizations to join the emerging marketplace to bring more clout and potential for inter-organizational cooperation.

---

[14] E.g. ethnography, anthropology, sociology, social psychology, etc.
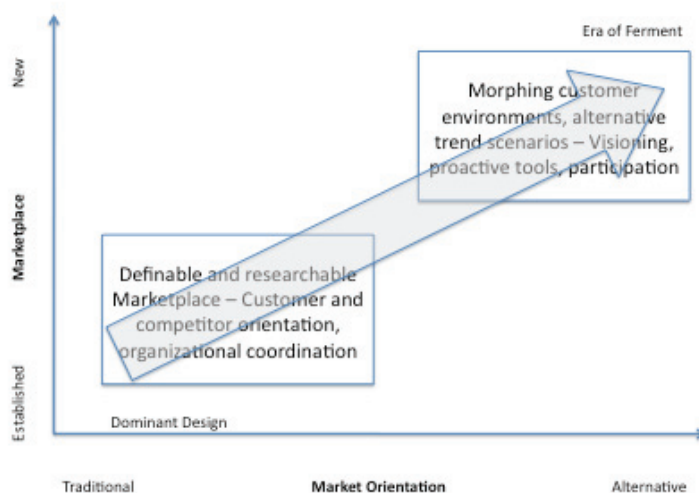
Figure 8. Market Orientation and the Market Place

Traditional means to identify your customers and competition such as surveys, interviews and focus groups work satisfactorily at an existing marketplace. Alternative MO we know less about, but it can also mean the lack of MO efforts. Maybe reasons why marketing tools are often not widely used by practitioners (Workman 1993, McDermott & O'Connor 2002), relate not only to start-ups' financial constraints, but also to the lack of trust that traditional methods would work within the radical product realm. Academic literature shows growing interest towards open innovation, trend analysis, anthropology, etc., to uncover and understand latent demand, structural evolution of industries and markets, and likely supplier and competitor responses (e.g. Chesbrough 2003, Teece 2007). Research on how to be market oriented in practice in a completely new marketplace, when we don't have operational tools to sustain it by measuring the market place, is lagging behind.

3.4. Relationship Management

I will now move to relationship management to discuss strategic alliances, strategic nets and last, but not least, the efficiency and effectiveness factors of cooperation.

There is always a risk of being wrong with the original innovation's commercial potential in the first place and following a solution-oriented path

can cause a development project to take wrong turns along the way. In a wider perspective it is probably not only the radical nature of innovation and the potential lack of market understanding that increases these risks. With technology leading the way, and/or with potential technological compromises that company has to make, the new product can drift away from its original idea, the vision for a marketable product and the inventive reason for product development.

Other knowledgeable organizations can act as a counterbalance. Even though not necessarily seen as such by the participants, the organizational setting where venture capitalists and start-ups interact is a type of alliance. Alliances can be of many different varieties and leaning on Morgan & Hunt (1994) and Varadarajan & Cunningham (1995), Lambe, Spekman & Hunt (2002, page 141) suggest; "When inter-firm business relationships are collaborative, rather than adversarial in nature, a variety of types of these relationships maybe classified as alliances, for example, manufacturer-supplier partnerships, strategic purchasing arrangements, joint ventures, outsourcing, technology licensing agreements, and various forms of R&D consortia."

Academia regards venture capitalists often, besides financiers, as sources for a widened "technology window." VC - Start-up interaction is more like what Doz & Hamel (1998, page 19) call a strategic alliance. "Conventional partnerships serve set objectives and face well-circumscribed risks; their economics are usually clearly understood from the start, and their strategic scope is usually limited and clearly bounded. Thus, a relatively static perspective on their implementation may be sufficient to ensure success. Not so in the strategic alliance, in which partners must be flexible and must see theirs as a relationship whose objectives are bound to evolve in ways that cannot be fully planned at inception." Moreover, "an alliance is perhaps best conceived as an evolving relationship punctuated by a series of commitments, steps, and "bargains" explicitly negotiated or implicitly accepted over time. In the course of that step-by-step evolution, possible changes in the relationship are reviewed and considered by partners, who reinforce or limit their commitments accordingly" (Doz & Hamel 1998, page 20).

When cooperation is seen as an alliance, relational factors (trust and commitment) and non-relational resources, namely complementary and idiosyncratic resources, contribute to alliance success (e.g. Day 1995, Ganesan

1994, Hunt 1997, Morgan & Hunt 1994, Varajadarajan & Cunningham 1995, Lambe & Spekman & Hunt 2002). I will not, however, go deeper into the alliance discussion for two reasons. First, VC-start-up collaboration is an exceptional type of alliance. Second, even though a VC would have years of experience on how to successfully create value in these types of alliance situations, to be effective, an alliance needs strong input from both parties. Although it might be argued that one competent alliance partner can have a positive effect on, or "train" the other, know-how required to be a competent alliance partner is complex and requires years of alliance experience. Thus, it is unlikely that a partner firm with little alliance competence will develop such a competence during the life of any particular alliance (Lambe, Spekman & Hunt 2002).

Start-ups are in constant lack of resources. To gain resources, start-ups lean on other organizations. The following relies heavily on Möller & Törrönen (2003). Relationship management and industrial network theory discuss strategic nets and the underlying systems through which to produce value. Value creating systems span from clearly specified and relatively stable systems to emerging value systems aimed at developing new technologies, products, or business concepts. When actors produce and deliver specific products with known value activities and capabilities, the strategic nets generally pursue efficiency gains. Strategic nets creating emerging value systems pursue technology and business solutions that are pronouncedly more effective than existing ones. (Möller and Halinen 1999, Pfeffer & Salancik 1978, Möller & Törrönen 2003). Efficiency-based resources work to overcome organization's internal obstacles, bottlenecks, etc, to turn processes smoother and faster. "Efficiency refers to the efficacious use of current resources, in other words, getting more out of resources used. A gain in efficiency results in lower production costs or transaction costs" (Möller & Törrönen 2003, page 111).

Resources that work to enhance effectiveness increase organizations' external operability, their work environment and contact surface with the outside world. Effectiveness refers to an actor's ability to invent and produce solutions (create new resources) that provide more value to markets (customers) than existing offers. Nevertheless, creation of new resources increasingly takes place through co-production between firms and outside organizations, such as research institutions (Child & Faulkner 1998, Teece, Pisano & Shuen 1997, Möller & Törrönen 2003).

Besides efficiency and effectiveness, there is also a network dimension, consisting of resource-access, scout and market signaling functions. Resource-access function describes the network connections of a specific supplier. Scout function refers to market and other information that can be obtained from the working environment through a particular supplier. When a supplier is highly esteemed, a relationship with it may have a positive reference or signaling that is realized through the wider network actors; market signaling function (Möller & Törrönen 2003).

Figure 9 depicts the difference between efficiency and effectiveness functions as seen within our research framework.
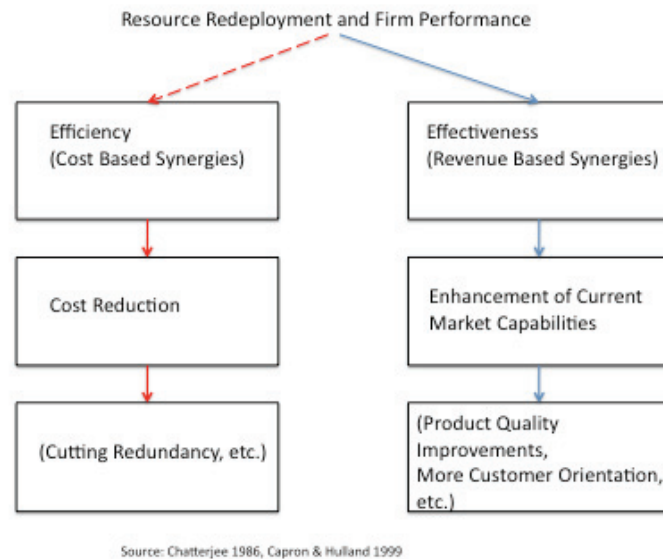
Figure 9. Resource Redeployment and Firm Performance

Left side of the figure refers to the impact of a more efficacious use of firm's current resources. Right side of the figure refers to what increased effectiveness can accomplish to firm's external operability.

A venture capitalist and its portfolio can be seen as a loose network of firms and cooperation induced revenue-based synergies can perhaps lead to SUs business opportunity re-assessment; better-suited product offerings, increased

market understanding, and higher customer demand. In other words, this study discusses how networks can potentially increase organization's effectiveness, but limiting the view on these companies. External partnerships with other organizations, as well as firm's internal partnerships, are outside the scope of this study and will not be covered.

3.5. Knowledge Management and Knowledge Creation

This section discusses perhaps the most important resource for competitive advantage, knowledge. It also deals with, among other things, four modes of knowledge creation, an enabling context that has to be present for new knowledge to develop and four categories of knowledge assets.

Knowledge is a resource and a key source of innovation (Takeuchi 2001). The value of measuring and managing knowledge in a systematical manner, even though important, is not enough for innovation, because innovation is about creating something new. One cannot predict accurately beforehand what will happen in the market place. Thus, when firms are creating new products and services, they are in constant lack of resources, such as satisfactory know-how of how to service their future marketplace. Because of the unknown elements, capability creation is also knowledge creation and deals with the tacit elements of knowledge.

This dissertation uses Takeuchi's (2001) division of knowledge management with three different approaches within. (See also, Nonaka & Takeuchi 1995, Nonaka, Toyama & Konno 2001). Knowledge management consists of:

1. Knowledge measurement
2. Knowledge management
3. Knowledge creation

Knowledge measurement is about developing measurement systems for the intangible assets of organization and reporting results publicly. Managing knowledge consists roughly of codifying, storing and leveraging knowledge to get others to use it and aims at getting the best out of the knowledge repository of organization (dissemination of knowledge). Creating knowledge, on the other hand, goes beyond existing knowledge. It aims at giving birth to new knowledge, and at the basis of the knowledge-creating process are knowledge assets. Knowledge assets are inputs, outputs and moderating factors of the

knowledge-creating process (Nonaka, Toyama, Konno 2001). They are firm-specific resources that are indispensable in creating value for the firm. An organization must build these assets internally in order to realize their full value, because they cannot readily buy and sell them (Teece 2001).

One can analyze knowledge with various dimensions. The most common is codifiability, the distinction between explicit and tacit knowledge. Tacit knowledge, which is something that is difficult or impossible to write down or otherwise capture (Takeuchi 1995, Polanyi 1966), consists of two dimensions. "The first is "technical" dimension, which encompasses the kind of informal and hard-to-pin-down skills or crafts often captured in the term "know-how"" (Takeuchi 2001, page 319). When know-how based, knowledge implies on how to do things and it reveals what the current practice inside a firm will be (Kogut & Zander 1992, Lindman 1997). The other dimension is the important "cognitive" dimension, which consists of beliefs, perceptions, ideals, values, emotions and mental models so ingrained in us that we take them for granted. Though we cannot articulate it very easily, this dimension of tacit knowledge shapes the way we perceive the world around us (Takeuchi 2001).

Murray (2001) has suggested that while building a knowledge-based theory of the firm, academics have traditionally concentrated too much on the static state of knowledge, describing a firm's knowledge at a given point in time. She defines a concept of knowledge path as a sequence of states of knowledge that a firm follows over time, and sees a similarity with definitions given to technology trajectories. Murray approaches the use of intra- and extra-organizational structures based on knowledge evolution and costs and limitations of the underlying organizational processes. Chesbrough and Teece (1996) on the other hand represent a kind of more straightforward technology transfer/ knowledge transfer approach, which is part of a strong and valued vein in strategic thinking. Although a company cannot outsource innovation in its entirety, technology transfer and external acquisition activities can successfully augment internal efforts. When it comes to knowledge evolution and creation processes, this dissertation is closer to Murray's than Chesbrough & Teece's thinking.

Firm specific learning may be valueless outside the firm per se and collective tacit knowledge cannot be traded directly, because it is a supra-individual phenomenon. Other organizations have to follow their own capability creation

processes; there are no short cuts. In their article on the evolution of dynamic capabilities Zollo and Winter (2002) introduce three learning mechanisms; experience accumulation, knowledge articulation and knowledge codification. By drawing from the work by Gavetti and Levinthal (2000) they point out that routines (i.e., competencies) reflect experiential wisdom in that they are the outcome of trial and error learning, and the selection and retention of past behaviors. This view emphasizes tacit knowledge and according to them, is consistent with the traditional view of organizational learning as skill building, based on repeated execution of similar tasks. A small fraction of articulated knowledge is actually articulated and organizations differ substantially on this. With articulation and codification, implicit knowledge is articulated through cognitive efforts of collective discussions, debriefing sessions and performance evaluation processes. Knowledge codification, such as writing manuals, is a step beyond knowledge articulation. The latter is required to reach the former.

In order to go deeper into the new knowledge creation process, I will now scrutinize capability development and competitive advantage through two separate but somewhat interlocking paths. In Figure 10, Andreu & Ciborra (1996) approach capability development as a straightforward organizational learning process, where resources are developed to become capabilities, and create competitive advantage. Von Krogh, Ichijo & Nonaka (2000) in contrast, show what is needed for this process to materialize, and approach capability development through an enabling process that starts from utilizing tacit knowledge and ends in sustainable competitive advantage.

First, Andreu & Ciborra's (1996) capability development process:

Source: Andreu & Ciborra 1996
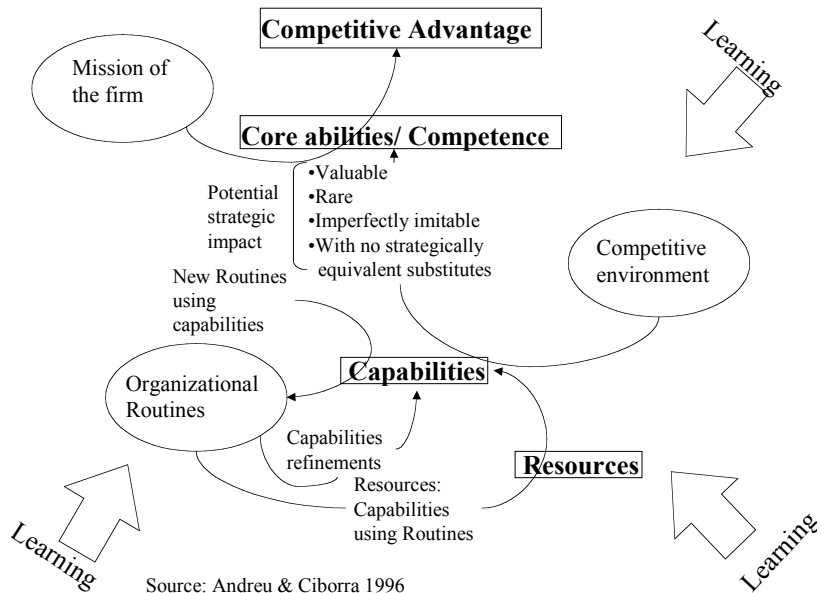
Figure 10. The Capability Development Process

The first step in the learning process is resource utilization at the lower part of the picture. Resources can become capabilities through emerging organizational routines. Some capabilities reach the next level and evolve into core competencies, depending on the competitive environment and the strategic impact of capabilities. The mission of the firm and its competencies resolve if capabilities live up to become competitive advantage, the highest level on this capability development process. There are no clear definitions in the literature for core competencies (McDermott & O'Connor 2002). Prahalad & Hamel (1990, page 82) point to the process itself and define core competence as the "collective learning in the organization, especially how to coordinate diverse production skills and integrate multiple streams of technologies."

Understanding which capabilities are both distinctive and fundamental in competing in a given market is strategic in nature and becomes part of the organizational (formative) context in which all firm's activities, including learning, occur. Management actions aim at giving the appropriate direction to the learning processes at a given point in time (Argyris 1993, Andreu & Ciborra 1998). Figure 11, below, depicts how Von Krogh, Ichijo & Nonaka's (2000) dynamic knowledge-creation process requires an enabling context; a social setting that fits the company's strategy and business goals and allows knowledge to grow. In the figure tacit knowledge is first shared between

individuals in face-to-face interaction in the originating phase of the knowledge creation process. In the conversing phase a group of people share mental models and skills collectively, which reinforces the conversion of tacit knowledge into explicit knowledge. The documenting phase of the knowledge creation process is both collective and virtual, and mainly involves the combination and presentation of existing explicit knowledge to a larger number of people. Internalizing is individual and virtual and turns the explicit knowledge tacit again in the mode of learned values, skills and capabilities. This knowledge creation process is discussed from a different angle in Figure 12.
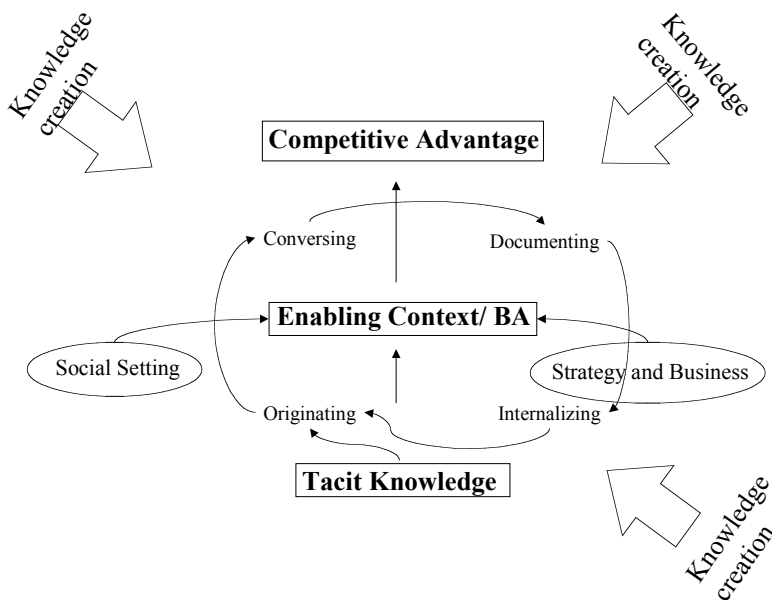
Source: Von Krogh, Ichijo & Nonaka (2000)

Figure 11. Knowledge Creation Process

Enabling context/ "Ba" is a place where new knowledge creation takes place. It does not have to be a physical place, "rather, the concept of "Ba" unifies the physical spaces, virtual spaces and mental spaces involved in knowledge creation"(Von Krogh, Ichijo & Nonaka 2000). This process that takes place due to the enabling context, namely originating, conversing, documenting, and internalizing knowledge, is Basically derived from Nonaka and Takeuchi's (1995) SECI –model (below) and resembles Zollo and Winter's (2002) accumulation, articulation and codification learning mechanisms.

Figure 12 is a combination of Nonaka and Takeuchi's (1995) SECI –model and Nonaka, Toyama and Konno's "Ba, the shared space of interaction" –figure (2001). An organization's learning process is divided into four different entities and at the same time the "Ba," the enabling space, is defined by two dimensions of interactions. One dimension is if the interaction takes place individually, or collectively. The other is about the media, whether the interaction takes place face-to-face or virtually, such as through emails, teleconferences, shared websites, manuals, etc. New knowledge creation is the interplay of tacit and explicit elements and needs SECI, "Ba" and knowledge assets to succeed.

Type of Interaction

	Individual	Collective	
Tacit → Tacit ↓ Face-to-face	**Activity: Socialization** **Type of knowledge: Sympathized** **Type of ba: Originating**	**Activity: Externalization** **Type of knowledge: Conceptual** **Type of ba: Dialoguing**	Tacit Explicit ↓
Media Virtual	Activity: Internalization Type of knowledge: Operational Type of ba: Exercising	Activity: Combination Type of knowledge: Systemic Type of ba: Systemizing	
Tacit → Explicit			Explicit ← Explicit

Source: Nonaka & Takeuchi 1995, Nonaka, Toyama & Konno 2001

Figure 12. Four Modes of Knowledge Creation (SECI –Model) with Dimensions of "Ba"

The knowledge creation process is a clock-wise spiral (not a circle), an ongoing process that starts from the upper left corner and needs all the elements to succeed. Sharing tacit knowledge requires socialization, a loose way of communicating experiences. The process of articulating tacit knowledge as explicit knowledge is externalization. Knowledge is crystallized here, allowing it to be shared by others, and concepts are created through the use of metaphors and analogy. Systemic knowledge is an accord between new thinking and previously gained knowledge, and creating new combinations

from these elements. Finally, knowledge is of no use if you do not spread it around. The internalization process turns the knowledge operational and enables it to be used for the competitive advantage of the organization. The process will restart and turn into a new loop when a new level of operational knowledge brings another need to create something new, i.e., a new round of socializing will take place.

As Figures 11 and 12 indicate, socialization needs an originating "Ba" to succeed. This means individual face-to-face interactions, where assets like care, love, trust and commitment emerge, forming the basis for knowledge conversion among individuals. Dialoguing "Ba" is defined by collective and face-to-face interactions. Tacit knowledge of individuals is shared and articulated through dialogues among participants and dialoguing "Ba" is more consciously constructed than originating "Ba." Systemizing "Ba," on the other hand, is defined by collective and virtual interaction. Combining existing explicit knowledge, such as on-line networks, groupware, documentation and databanks, offers a virtual collaborative environment. Exercising "Ba" gives a context for internalization and synthesizes the transcendence and reflections that come in action, while dialoguing "Ba" achieves this via thought processes.

The knowledge creation process needs firm specific knowledge resources as fuel in order to function. These assets can be divided by how tacit, or explicit they are. Nonaka, Toyama & Konno[15](2001) provide the Figure 13 that divides knowledge into four different asset types.

---

[15] Nonaka I, Toyama, R, Konno, N, "Seci, Ba and Leadership: A Unified Model of Dynamic Knowledge Creation," at Managing Industrial Knowledge, Nonaka & Teece, Eds. Sage London 2001, pages 29.

Experiential Knowledge Assets	Conceptual Knowledge Assets
Tacit knowledge shared through common experiences • Skills and know-how of individuals • Care, love, trust, and security • Energy, passion, and tension	Explicit knowledge articulated through images, symbols, and language • Product concepts • Design • Brand Equity
Routine Knowledge Assets	**Systemic Knowledge Assets**
Tacit knowledge routinized and embedded in actions and practices • Know-how in daily operations • Organizational routines • Organizational culture	Systemized and packaged explicit knowledge • Documents, specifications, manuals • Database • Patents and licenses

Source: Nonaka, Toyama & Konno (2001)

Figure 13. Four Categories of Knowledge Assets

Experiential and routine knowledge assets include tacit elements, while conceptual and systemic assets include explicit elements. If new knowledge is to be created, then at least some of these experiential and routine knowledge assets have to transfer and re-erect in the start-up's end, enabling new knowledge to appear, which would justify that knowledge transfer took place. If a VC is able to facilitate an enabling context, the outcome brings foundations for new capabilities and extended competitive advantage. However, in order for this to happen, besides facilitating an enabling context, a VC also needs a clear knowledge vision that is communicated throughout the VC employees, participating start-ups, and perhaps also other participating VCs.

3.6. Resource-Based View of Organizations

In this section I will discuss various aspects that knowledge transfer can depend on. I will also explain why drawing clear analogies between customer coproduced knowledge and inter-organizational interaction is problematic. I will start, however, by defining resources, capabilities and competencies.

A key building block for resource-based view has been Edith Penrose's thinking, particularly "The Theory of the Growth of the Firm" (Penrose 1959), which a growing number of scholars, e.g. Wernerfelt (1984) and Teece (1982), have followed. David Teece has stressed (1986) that core technological know-

how is of little use as a resource if it is not accompanied with complementary assets such as diverse supporting competencies. He saw that these assets do not necessarily reside only inside the company, but also in different parts of the value chain.

Contemporary resource-based thinking builds mutually upon descriptive and normative components. The descriptive component deals with the distinctive resource profile of each firm. It is about processes that lead to specific new resource combinations that induce or reinforce heterogeneity among firms. On the other hand, most of the academic work on the normative, prescriptive component during recent decades has shared, at least implicitly, the following four characteristics (Rugman & Verbeke 2002):

1. The firm's ultimate objective is to achieve sustained, above-normal returns, as compared to rivals.
2. A set of resources, not equally available to all firms, and their evolution into competences and capabilities, are a precondition for sustained superior returns.
3. Competencies and capabilities lead to sustained superior returns, to the extent that they are firm specific (i.e., imperfectly mobile), valuable to customers, non-substitutable and difficult to imitate.[16]
4. From a dynamic perspective, innovations, especially in terms of new resource combinations, can substantially contribute to sustainable superior returns.

Resources are transferable input factors of production (Amit & Schoemaker 1993), and firm specific assets, which are difficult or impossible to imitate (Teece, Pisano & Schuen, 1992). One can define them as any tangible or intangible entity (e.g., physical asset and/or capability) available for use by the firm to compete in its marketplace (Hunt & Morgan 1995). For a competitive long-term advantage to emerge, resources must be valuable, rare, imperfectly imitable, and without a strategically equivalent substitute (Barney 1991).

---

[16] Authors go on referring to Mahoney and Pandian (1992) and divide heterogeneity and its inducement or reinforcement in firms into two entities: 1) Through a process of Schumpeterian competition, path dependencies, first mover advantages, irreversible commitments and use of complementary or co-specialized resources are the focus of modern disequilibrium approaches in the resource-based field. 2) Industry differences in firms' performance can be sustained over time as a result of "isolating mechanisms and uncertain imitability". Authors see that especially the second source of heterogeneity is critical as the basis for strategy prescription.

Capabilities are specific and path dependent (Andreu & Ciborra 1996). They develop to be more company specific than general purpose, which makes them harder to imitate. Path dependency means that capabilities are dependent on the process through which they were acquired (Collis 1991, Dosi & al. 1990, Dierickx & Cool 1989). Penrose suggested (Penrose 1959, 1966) that capabilities are means to achieve things (flows) and resources are the building material to do so (stocks). A firm's competitive advantage relies on its resources, and capabilities and competencies are higher-order resources, which make it possible to exploit the more basic input resources (Yli-Renko 1999).

Capabilities can be dynamic, like knowledge assets are. Carrying from Teece et al. (1997), Winter and Zollo (2002) define dynamic capabilities as a learned and stable pattern of collective activity through which the organization systematically generates and modifies its operating routines in pursuit of improved effectiveness. The authors point out that their definition has the advantage of specifically identifying operating routines[17], as opposed to the more generic competencies. An interesting issue with dynamic capabilities within the framework of this study is the inter-organizational aspect of cooperation. As Lambe, Spekman & Hunt (2002) state, it is unlikely that a partner firm with little alliance competence will develop such a competence during the life of any particular alliance.

Other scholars define competence[18] as an organizational ability to deploy tangible and intangible entities in a way that helps a firm to compete in its marketplace (Sanchez, et al. 1996, Lambe & Spekman & Hunt 2002). McDermott & O'Connor (2002) add to Anderson & Tushman's (1990) earlier work and suggest that there are three kinds of competencies. They can 1) enhance, i.e., advance the firm's leadership proposition through extension of strengths 2) destroy, i.e., replace existing company strengths and even whole incumbent firms or 3) stretch, i.e., take the form of moving the firm to a new direction (either technologically or through new markets). McDermott & O'Connor (2002) saw stretching, which requires the creation of truly new abilities and knowledge within the firm, as one of the key elements of radical innovation projects and the one that distinguishes them from more

---

[17] Like "routines" in Figure 10, by Andreu & Ciborra (1996), this is close to the "Routine Knowledge Assets," one of four types of knowledge assets described by Nonaka, Toyama and Konno (2001) in Figure 13.
[18] This definition is very close to the capability definition.

incremental efforts. Within new start-ups it is mostly about stretching all along, because they don't usually have earlier history to enhance, or destroy.

Stretching can also be seen as a competence, or dynamic capability to co-create new knowledge with other organizations. Theoretically, a VC can offer a whole assortment of suitable resources for a start-up it finances. Following previous diversification, I assume that a majority of them aim at speeding up start-ups' business development processes, thus being efficiency-related. I anticipate that a start-up's knowledge about the dynamics and functionality of markets is limited, or at least not thorough, as it begins to build upon its business idea. Tentatively, inter-organizational knowledge transfer could then depend on the following aspects,

1. Level of involvement from participating organizations
2. Type of involvement
3. Receiving organization's stand towards external resources, and
4. Receiving organization's readiness to internally process these external resources

The level of involvement refers to the level of how much and how often participating organizations interact with each other. The type of involvement refers to the type of situations where involvement takes place, and the type of information and knowledge assets shared (experiential, conceptual, systemic and routine). The stand towards external resources refers to the receiving organization's orientation, whether formal, informal, seeking partnerships, or internally self-sufficient. Finally, the readiness to process brings up the question of how the receiving organization takes advantage of the exchanged resources internally and what priority these resources have as part of the organization's working routines.

When discussing knowledge as a transferable, inter-organizational resource, one cannot avoid also discussing customer-coproduced knowledge (knowledge co-creation). Blazevic and Lievens (2008), following Lusch and Vargo's (2006) conceptualization, define knowledge coproduction as the degree to which customers and companies create new knowledge through mutual interactions. Theoretical discussion includes topics of innovation, knowledge creation and customer collaboration and originates mainly in two literature streams: services marketing and innovation. The authors identify three customer roles

during knowledge coproduction: passive user, active informer and bidirectional creator. When customers are regarded as passive users, customer action is scrutinized to understand how they use the product. When customers are regarded as active informers they are encouraged to point out various problems and deficiencies by giving feedback. Customers are bidirectional creators when, as part of assemblies such as virtual customer communities, discussion forums, or other online groups, they consume information about a shared item of interest.

Most likely all these roles also exist in inter-organizational interaction. As Blazevic and Lievens (2008, page 150) state, "A lot of customer coproduced knowledge relates to existing products and services and might therefore rather steer incremental innovation. However, bidirectional creators also contribute solutions and innovative combinations of knowledge. Hence, assuming some creative potential, companies can infer latent needs from these dialogues." However, looking for a clear analogy between customer coproduced knowledge and inter-organizational knowledge creation is problematic. This is due to challenges with alliance competence. As was stated in section 3.4. "Relationship Management," Lambe, Spekman & Hunt (2002) state that in order for two organizations to successfully create value, they not only need strong input from both parties, but also years of alliance experience.

3.7. Technology-Based Enterprises and Venture Capitalist Financing

Here, as a part of VC discussion, I will talk about the potential portfolio factor of participating start-ups. I also come up with one general and four guiding hypotheses that are theory induced and work as a theoretical backbone in conducting empirical research.

VCs, business angels and incubators are risk investors. Business angels are wealthy individuals, who often limit their involvement into taking part in the board of management work. Incubator investing is aggressive, or at least overtly hands-on. Some incubators have a tendency of treating start-ups as subsidiaries, as equity share can be over 50 percent.

There are various ways to divide the different stages of VC investing. One of the earlier ones is Tyebjee & Bruno's (1984) six stages of firm development; 1)

seed financing – to develop a concept, 2) start-up financing – to develop the product and its initial marketing, 3) first stage financing – to initiate production and sales, 4) second stage financing – working capital for firms that are producing and shipping products, 5) third stage financing- to finance growing firms that are at least at the break even point, and 6) fourth stage financing – capital for firms expected to go public within 6 months (see also Carter & Van Auken 1994). Besides these stages, the industry also uses terms like expansion financing and mezzanine (bridge) financing for pre initial public offering financing.

As was pointed out in section 3.4, the process where VCs negotiate and select potential start-ups requires experience and competence, comparable to alliance management. Some academics suggest that gaining alliance competence is such a hands-on learning experience that firms should expect some of their initial attempts to fail. Although books and training programs exist, much of the knowledge about finding, developing, and managing alliances is tacit, hence firms must learn by doing (Day 1995, Spekman & al 1999, Anand & Khanna 2000, Lambe & Spekman & Hunt 2002).

VCs are of course primarily looking to make a profitable business transaction and one of the investment criteria should be in what ways the investor can add value to the start-up with its connections and skills in a particular industry. Portfolio management, as defined in new product development literature (e.g. Cooper, Edgett & Kleinschmidt 2002), is traditionally an intra-firm activity. It is a means of yielding a right mix, balance and number of new product development projects for a firm. VCs also work with mix, balance and number issues when making decisions on which companies to invest. In VC's case it is also about knowledge diversification (Matusik & Fitza 2012). An optimal portfolio can be a sum of start-ups that support each other technologically and operationally, creating a so-called portfolio factor[19].

Besides the most important aspects of choosing a new start-up, which is the expected return of investment, other issues include:

1. Does the new start-up improve the strategic alignment of companies that belong to the VC's portfolio?

---

[19] Interview with Victoria Hackett 05/02/2002.

2. Does the new start-up improve overall value and skill repository of the portfolio?

3. Does the new start-up create or improve a balance in the portfolio so that portfolio companies can work together to overcome their obstacles?

4. Does the VC have resources and skills itself to help the new start-up in both the operational and strategic issues that emerge along the new product and business development process?

From a capability transfer point of view, VC - start-up interaction is very appealing. VCs' participation can be active and deal with several issues, since the relationship lasts a long time. However, the effect of the portfolio factor can also start evading, when the venture capitalist's portfolio spreads to multiple business areas, or simply gets bigger and more difficult to handle. As one interviewee put it, "Disseminated information inside a portfolio has to be general to be effective. It can consist of sales pipeline reports, business administration topics and variable best practices. Knowledge exchange works best on individual product development and company specific levels, when companies base on similar market areas, and/or approach similar customers. If cooperation is forced between companies that operate at different market areas, a VC can end up taking away from their overall priorities, as companies get distracted on what they should be doing in order to be successful."[20]

Portfolio factor and alliance competence share some similarities. Hunt (1997) and Lambe, Spekman & Hunt (2002) point out that firms that have an alliance competence systematically and proactively scan for and identify potential partners that have the complementary resources needed to develop a relationship portfolio, or a "mix" that complements the existing competencies and enables them to occupy positions of competitive advantage. The latter authors call it the partner identification propensity. Early-stage investing can be challenging, though, since even with the propensity to pick potential partners with complementary resources, spending a long time with one company can cause a VC to lose its objectivity towards the company.

As was indicated in sections 3.4 and 3.6, in order for a VC/ SU cooperation effort to work, receptiveness is needed from both sides. Besides the tendency to rely on technological assets, management literature emphasizes openness

---

(both internal and external) as an important ingredient for success (e.g. Nyström 1990, Teece 2008). Customer coproduced knowledge, open innovation, sensing, market orientation, and new knowledge creation will not materialize without sufficient openness.

My general hypothesis is that inter-organizational cooperation and venture capitalists' "hands-on" approach is beneficial for all participating organizations, making the guiding hypotheses[21] the following:

1. Start-ups, while receiving private equity, are "open" enough and receptive to intangible resources offered by the venture capitalists and participating portfolio of other start-ups.
2. Close cooperation with start-ups will create a "Ba" like existence. Information exchange leads into the creation of new knowledge as tacit knowledge evolves in an enabling environment to a new capability.
3. New knowledge, gained by venture capitalists active participation, will steer start-up organizations and bring their new products and evolving business models closer to the expectations of the new markets accordingly.
4. Because of the better-assessed market place and consequent modifications in the offering and market strategy, the revenue-potential of start-ups is enhanced by cooperation.

The working practices of venture capitalists differ from one another. Taken that the more traditional venture capitalist approach to cooperation is different and perhaps more "hands-off" than "hands-on," the above-described phenomena are not expected to evolve similarly and thus suggested guiding hypotheses are expected to receive more support in the context of "hands-on" VC's and their start-ups. Evidence that the hands-on approach actually produces general patterns that resemble suggested hypotheses, and that these patterns vary from those produced by the more traditional approach, would be enough for strong conclusions about the effects of active participation, i.e. the hands-on-approach[22].

---

[21] "Guiding" hypotheses are used based on an understanding that within exploratory and abductive study structure, instead of merely testing the chosen hypotheses and proving them right or wrong, study should go further and use them as guides in the process of generating questions, searching for patterns and coming up with new hypotheses. See, e.g. Marshall & Rossman 1999, page 53.
[22] See, Yin, Robert K: "Case Study Research, Design and Methods," Sage Publications 1994, page 107.

In the following, I will discuss the guiding hypotheses and at an abstract level the theories that have worked as source of inspiration.

<u>First guiding hypothesis</u>

"Start-ups, while receiving private equity, are "open" enough and receptive to intangible resources offered by the VC coalition and participating portfolio of other start-ups."

Within innovation management, the SAPPHO project stresses the balance theory and maintained equilibrium of a firm's internal network, external user collaboration and external sources of technological knowledge. The concept of open innovation carries the concept of systematically finding what the external business environment has to offer (Chesbrough 2003). Teece (2008) talks about sensing for identifying and shaping opportunities. Market orientation literature talks about customer and competitor orientation, and in the relationship management realm there is discussion about strategic alliances (Doz & Hamel 1998) and strategic nets (e.g. Möller & Törronen 2003).

Within knowledge management, Murray (2001) discusses the use of intra- and extra organizational structures, based on knowledge evolution and costs and limitations of the underlying organizational processes. Under resource based thinking, Teece (1986) points out that core technological know-how is of little use as a resource if it is not accompanied with complementary assets, which can also reside in different parts of the value chain. Finally there is the discussion of customer co-produced knowledge. It of course requires openness to learn along with your customers (e.g. Blazevic & Lievens 2008).

<u>Second guiding hypothesis</u>

"Close cooperation with financed organizations will create a "Ba" like existence. Information exchange leads into the creation of new knowledge, as tacit knowledge evolves through an enabling context into a new capability."

The SECI –model (Nonaka & Takeuchi 1995) depicts the knowledge creation process, where "Ba" is a central element. Further, Von Krogh, Ichijo & Nonaka (2000) discuss dynamic knowledge creation, where again, an enabling context is crucial for organizations to share and learn tacit knowledge.

<u>Third guiding hypothesis</u>

"New knowledge, gained by venture capitalists' active participation will steer start-up organizations and bring their new products and business models closer to new markets expectations accordingly."

Innovation management literature discusses commercially discontinuous innovations and the need to know about your markets, and Sappho the profound knowledge of user needs. Within NPD/ NBD, market creation is about understanding the dynamics of the new marketplace and McDermott & O'Connor (2002) talk about discovering how the market structure works. The relationship management school talks about strategic nets to produce value (e.g. Pfeffer & Salancik 1978, Möller & Halinen 1999). Nonaka, Toyama & Konno (2001) discuss dynamic interaction and mobilization of knowledge of outside constituents, and Jaworksi & Kohli (1993) about alternative avenues for gaining competitive advantage in turbulent industries. Finally, there is the whole discussion of alliances and alliance success (e.g. Day 1995, Ganesan 1994, Hunt 1997, Morgan & Hunt 1994, Varajadarajan & Cunningham 1995, Lambe & Spekman & Hunt 2002), and also some discussion about VC/SU cooperation in particular (Matusik & Fitza 2011).

<u>Fourth guiding hypothesis</u>

"Because of the better-assessed market place and consequent modifications in the offering and market strategy, the revenue-potential of start-ups is enhanced by the cooperation."

Inter-organizational interaction is important and challenging. Lambe, Spekman & Hunt (2002) talk about partner identification propensity that has to be learned by doing. Within the innovation management realm, again, Sappho stresses the "balance theory," where internal network, external user collaboration and external sources of technological knowledge are needed to make a balanced, successful new product development approach. Chesbrough (2003) calls for an open NPD process and combining complementary innovations to create a solution to a customer problem. Narver, Slater & MacLachlan (2004) suggest a proactive market orientation approach to discover, understand and satisfy latent needs of customers.

3.8. Conclusions and the Conceptual Framework

Following the multi-theoretical research approach of the dissertation, this section sums up the key theoretical findings, and re-articulates the role of six research traditions. Foremost, it introduces four research domains and a conceptual framework that the empirical part of the study will build upon.

A firm faces critical choices during a new business development process concerning upcoming customers, competitors and available technology. In the context of radical innovation there is generally not enough information available to be able to paint a comprehensible picture of the upcoming marketplace.

Product attributes derive from the recognition that certain technical capabilities address certain customer needs – being the tie between capabilities and needs (Markman 2002). Technology transfer has been widely studied, as has been technology-push and market-pull as drivers for new product development. In the technology / market, dichotomy technology is the hard asset of a firm, which sets the pace for innovation activities. Contemporary management literature acknowledges the role of technology, but does not give much emphasis on situations where there is not yet a customer base to study, or customers have not been able to give a meaning to a product, because the new concept is too far from their experience universe.

Market-pull takes place only if a firm can reach, observe and analyze an existing need. Product initiative doesn't necessarily come from the company either. It is often (lead) users rather than manufacturers, who initially think about and even prototype many commercially important products (Von Hippel, Thomke & Sonnack 1999, Cooper, Edgett & Kleinschmidt 2002).

Summarizing the discussed theoretical views, contemporary literature acknowledges that,

1. Tacit knowledge does not transfer by itself. It has to be processed.
2. Capabilities are sticky. There are no short cuts and capabilities have to be created in-house.

3. Organizations' ability to use marketing tools for their product offering is limited if innovations are new and radical.

Coming back to Marksman (2002), above, it can be said that the successful product attributes are conditional, as are the technical capabilities; they are capabilities only if they meet suitable customer needs. We don't know beforehand if these product attributes are going to address the customer needs, if the product is radical and built for an upcoming marketplace, since traditional marketing tools are not of much help in this situation. So, it can be tentatively said that in order for a new product to succeed, organization's technical capabilities should meet their market capabilities to presume what an emergent marketplace wants vis-à-vis the technical capabilities. As agreed, because they are capabilities they cannot be copied from anywhere, they don't transfer directly, and they are sticky. These conditions emphasize the role of inter-organizational learning.

Dynamic interaction between organizations can enable a learning environment and a chance to adjust and adapt to turbulence in the market place. It can have an impact on a firm's future performance, because knowledge created by the organization can trigger the mobilization of knowledge held by outside constituents, such as consumers, affiliated companies, universities or distributors (Nonaka, Toyama & Konno 2001).

By combining the core ingredients of Andreu & Ciborra's (1996) model with that of Von Krogh, Ichijo & Nonaka's (2000), I come up with a tentative framework, depicted in Figure 14, that shows the process and factors that enable and condition whether the VC-SU cooperation will support the competitive advantage of the start-up company.

Figure 14. Capability Creation Trough Knowledge Creation

Shared resources can create competitive advantage in favorable circumstances. They need a supporting environment and compatibility with the firm's mission. In the same vein, the dynamic knowledge-creation process requires an enabling context that supports the company's strategy and business goals; an accompanying social setting that allows knowledge to cross the inter-organizational chasm and grow to become a capability.

The foundation for new product opportunities is in the experience base and learning from prior research activities of a firm (Teece, Pisano, Shuen 1997, Lindman 2000). Cooper, Gimeno-Gascon and Woo (1994) found that the resource profile of a starting venture has a predictive influence on its subsequent performance. Nonaka and Teece (2001) point out that the information/ knowledge/ competencies dimensions of inputs used to create products remain almost completely unexplored in economics and strategy. One of the features of these dimensions is that because one cannot purchase them on the market, the growth of the firm is limited in the short run by the "stock" of such intangibles and competencies processed by the firm.

Thus, a radical innovation process is in the longer run also a new knowledge creation process, albeit, not always defined as such. Nonaka, Toyama and

Konno (2001) have suggested a model of inter-organizational knowledge creation. The model, described in Figure 15, divides knowledge into explicit and tacit entities with constituents such as consumers, affiliated companies, universities and distributors[23]. Cooperation can create an articulation of tacit knowledge that customers possess and firms themselves have not been able to articulate. By succeeding to turn tacit knowledge into explicit through shared experiences, a company creates new knowledge and combines it with other explicit knowledge it possesses.
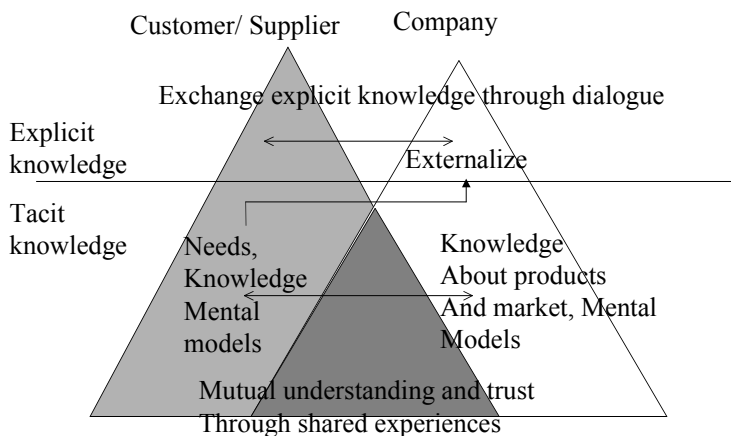
Source: Nonaka, I, Toyama, R, Konno, N (2001)

Figure 15. Creating Knowledge with Outside Constituents

One can only share tacit knowledge in direct experiences and furthermore, the individual knowledge of participating organizations needs an atmosphere of mutual understanding and trust to transfer from tacit to explicit.

Next I will discuss the conceptual framework of the study, which is depicted in Figure 16. Since the overall purpose of this dissertation deals with cooperation and market orientation in the context of radical innovation, I have discussed the following schools of thought: innovation management, new product development/ new business development, relationship management, knowledge management, market orientation, and used the resource based view

---

[23] More of the cooperation with external constituents, see Biemans, "Managing Innovations Within Networks," Routledge 1992.

of a firm as an underlying theme. Considering the research questions of how the cooperation processes between venture capital companies and their client start-up companies evolve, how cooperation influences participants working routines, and how cooperation shapes SUs' market understanding and business opportunity, these schools of thought pointed out gave way to four interrelated domains of interest; inter-organizational cooperation, i.e., understanding of the collaboration between VCs and SUs, knowledge creation, i.e., consequences of cooperation and the level of knowledge that has been gained due to it, and finally, market orientation and cooperation's effectiveness, i.e., the results of cooperation, to what extent it has improved the marketability of the SUs' products and brought competitive advantage.

6 Traditions:
Innovation Management
NPD/NBD
Relationship Management
Knowledge Management
Market Orientation
Resource-Based View

4 Domains:
Market Orientation
Inter-Organizational
Cooperation
Knowledge Creation
Cooperation's Effectiveness

4 Guiding Hypotheses:
SUs are "open" for external influence
Close cooperation will create a "Ba" like existence with the ability to create new knowledge
New knowledge will steer SUs and bring new products and evolving business models closer to new markets' expectations
SUs revenue potential is enhanced by the cooperation

3 Research Questions:
How VC-CU cooperation processes evolve?
How VC-CU cooperation influences participants' working routines?
How cooperation shapes SUs' market understanding and thus, business opportunity?

11 Empirical Concepts of Interest

Figure 16. Conceptual Framework

"Market Orientation" was discussed in chapter 3.3, "Inter-Organizational Cooperation" from varying points of view in every chapter of the literature – section, "Knowledge Creation" in chapter 3.5, and "Cooperation's Effectiveness" in chapter 3.4. The guiding hypotheses were constructed based on these discussions. They can be shown to include 11 core empirical concepts of interest. These will be dealt with in section 4.4, "Case Study – From Research Questions to Empirical Evidence.

4. Methodology

In this chapter a deeper look is taken into my study context, research strategy, case company selection, and used instruments and materials. Also the validity of the study is discussed. The methodology chapter follows the discussion in section 2.3. "Overview of Research Approach," where the general study design was introduced.

Augmenting what was pointed out previously, the aim of this research is to shed light on and explore venture capitalist and start-up cooperation with the objective to examine first the support and information exchange that takes place; and second, whether the cooperation influences SUs' market understanding and market orientation and thus potentially cause business opportunity re-assessments. I compare two VCs and their approaches to working with two SUs, and study the cooperation that is taking place between the VCs and SUs and between the two SUs.

The main objective of any research is to confront theory with empirical practice; to paraphrase Marshall and Rossman, (1999, page 25) "In qualitative inquiry, initial curiosities for research often come from real-world observations, emerging from the interplay of the researcher's direct experience, tacit theories, political commitments, interests in practice, and growing scholarly interests. At other times, the topic of interest derives from theoretical traditions and their attendant empirical research." The authors also point out that in exploratory studies it is hard to predict which literature will be most relevant and encompassing. In some cases the literature review yields cogent and useful definitions, constructs and concepts, even data collection strategies, which may fruitfully result in a set of guiding hypotheses, as was the case in this study.

Rich theory supply in many research traditions, and the need to adjust what theories to relate to as the study progresses, leans to an abductive study framework. In methodology –chapter I will further discuss:

4.1 Study context and Case Study Strategy

4.2 Case Company Selection and Company Study Design

4.3 The Research Instruments. Data Collection and Used Measures

4.1. Study Context and Case Study Strategy

This section starts with argumentation of the benefits of a qualitative study approach. A discussion of the case study strategy, comparative case study approach, the abductive study framework approach, and finally the embedded case study design will follow.

As pointed out, inter-organizational VC-SU cooperation is a complex and multilayered phenomenon when characterized as a longitudinal development process. Developing an in-depth understanding of this kind of phenomenon in society and culture is commonly seen to require a qualitative research approach, generally a case study (e.g. Marshall & Rossman 1999). In brief, there are several reasons for adopting a case approach.

The first reason that speaks for a qualitative study approach is that the research phenomenon and research context intertwine (Stake 1995, Yin 2009). It would be very difficult to pick individual independent variables to explicate the study problem validly. Second, and as an outcome of the previous reason, if quantitative research methods were used, the amount of researchable variables would no doubt far exceed the amount that could efficiently be handled in this type of research work. Third, inter-company cooperation itself is so multi-layered that we need to gain a more thorough understanding of the researchable phenomenon, such that is only approachable by qualitative methods (e.g. Hancock & Algozzine 2011, Miles & Huberman 1994).

According to Yin (1994) there are three different case study strategies. Case studies can be:

1. Exploratory
2. Descriptive, or
3. Explanatory

What is to be explored, the purpose of the exploration, and the criteria by which the exploration will be judged successful were specified in the overall research purpose of this study. My goal is not only to find answers through

description of the cases, but also to use cases as instruments to explore if the theory driven guiding hypotheses materialize through emerging themes and patterns from the data.

The case study approach is particularly appropriate for this kind of research (e.g. Eisenhardt 1989, McCutcheon & Meredith 1993, McDermott & O'Connor 2002), with a focus on:

1. Documenting a complex phenomenon within its organizational context,
2. Exploring the boundaries of a phenomenon, and
3. Integrating information from multiple sources

In a research setting where one cannot manipulate relevant behavior, the strength of a case approach is in its ability to examine contemporary events, and the usage of a process view and time dynamics. Relying heavily on Yin (1994, 2009, 2012), multiple object case study structures are in a way close to quantitative study structures; what happens in quantitative studies as running experiments happens in qualitative case studies by doing replication, or comparison. Multiple case analysis demands a solid replication strategy for picking up the cases, but replication is not the same as sampling in the quantitative realm. Executing several cases is like running several experiments as one wants to enforce one's understanding of the researched phenomenon.

There are two different types of replication, replication that either a) predicts similar results (literal replication), or b) produces contrasting results but for predictable reasons (theoretical replication). To support the notion that extensive VC cooperation and a "hands-on" approach would support a start-up company's product and business development operations, I choose theoretical replication. The anticipation is that theoretical replication would give many opportunities to highlight potential differences and similarities between the allegedly different investor approaches. In effect this means developing a theory-driven comparative case design.

There are some major paths for a researcher to follow when building a study design. You can build it to be tight and theoretically pre-structured, or loose and emergent with less theoretical preconceptions and constraints (Miles & Huberman 1994). In the former, the approach is deductive and you build

propositions from current theory and test them in the real world. In the latter, the approach is inductive and your theory emerges from your empirical findings as you proceed. There is also a third, abductive approach, which suggests constant movement between data and ideas, enabling the creation of analytic ideas (Coffey & Atkinson 1996, Dubois & Gadde 2002, Sperling 2005). Dubois and Gadde (2002) call this continuous movement between empirical and model worlds systematic combining. It is an approach where theoretical framework, empirical fieldwork and case analysis evolve simultaneously.

The abductive study framework is a mixture of deductive and inductive approaches, and it can be fruitful if the researcher's objective is to discover new things – other phenomena and causal mechanisms. Similar to "grounded theory" it is mainly concerned with generation of new concepts and development of theoretical models, rather than confirmation of existing theory. In an abductive process, the researcher will be successively bound to modify the original framework, because of unanticipated empirical findings and new theoretical insights he or she gained during the process.

Finally, this is an embedded multiple case study (Yin 2009). In addition to what was discussed in chapter two about comparative and complementary elements in the study structure, an embedded study approach means that attention is also given to subunits, which are created to help solve the overall research purpose. The unit of analysis in my study structure is the company level cooperation relationship, and the subunits come out of research questions and are the cooperation process, the working routines of the participants, and the market understanding/ business opportunity assessment of the participants. Looking at the phenomenon from two case samples is expected to provide a more comprehensive picture of the phenomenon. Following a multiple case study context and approaching the study problem from both start-up and VC sides forced the researcher to look at the cooperation from a wider perspective. The comparative, complementary and embedded design also enables the researcher to examine the guiding hypotheses in a more rigorous manner than in a single case setting.

4.2. Case Company Selection and Company Study Design

In this section I will first discuss how the companies and interviewees were chosen, what the company study design with participating organizations is, when and where interviews took place and finally, how I confirmed the suitability of the participants for the research.

The idea was not to limit oneself with any geographical area, but the location of the researcher in New York appeared to be an advantage. I used snowball sampling for information gathering and as a result drew information from one informant to the next as the process proceeded. According to Miles and Huberman, (1994) snowball or chain type sampling "identifies cases of interest from people who know people who know what cases are information rich." While using this approach one has to maintain a clear understanding to follow only those leads that deal with the phenomena set by the study framework. After substantial deskwork, a healthy sample of previous academic literature and contemporary business magazines, the researcher found an article in the "Fast Company" magazine about a London based VC, described as very active in supporting their start-ups[24]. What was particularly interesting was the portrayed way in which the VC networked companies, both inside and outside the portfolio. By a lucky coincidence and with the help of acquaintances and former colleagues at Sonera Corporation in Helsinki, Finland, a meeting was set up with a representative of Arts Alliance and the researcher. Mr. Eun was at the time based in the New York Office of Arts Alliance.

Interviewees were so-called key informants, and all of them presented important and needed qualifications, such as specific responsibilities and special knowledge (Phillips 1981). Further, all of them were involved in the studied relationships at the time when field research took place.

Altogether, the adopted case study approaches and the selected case companies lead to a theory driven comparative case design, illustrated in Figure 17, below. Arts Alliance's presumed more active, hands-on approach is depicted on the left, the other investor, Allen & Co is on the right. Every company will be discussed in detail in their own sections in the empirical part of the research, in chapter 5.

---

[24] Balu, R, "All the Right Connections," Fast Company Magazine, Issue 35, June 2000, page 378.
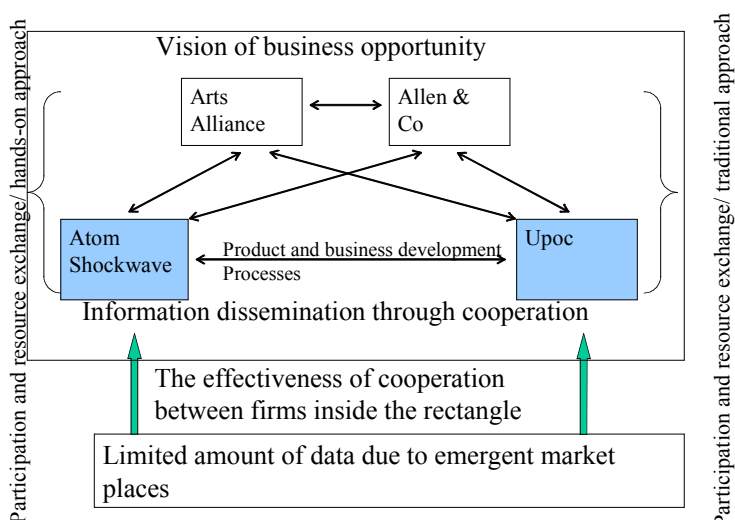
Figure 17. The Case Study Design with Participating Organizations

After introductory telephone conversations, Arts Alliance invited the researcher to London, to their global two-day summit and a visit to their offices. It was decided that the actual study setting would consist of two venture capitalists and two start-ups. The VCs were Arts Alliance and Allen & Co, one of the major, more traditional players in the industry (Allen & Co being mainly an investment bank, with a venture capital arm). The SUs would be Atom Shockwave and Upoc, both equally financed by the VCs. Arts Alliance also requested comments on their "hands-on" approach; the theoretical viability vs. the extra effort that it brought along. The anticipation was that Allen & Co's involvement in start-up operations would be different from that of Arts Alliance. However, at this point we didn't yet know if Allen & Co was willing to participate in the research at all.

The empirical part of the research took place in London and New York City between the spring of 2002 and fall of 2003. The idea was to interview CEO's, or upper management people with background and longevity in chosen business relationships. The longitudinal study structure was briefly mentioned in section 2.3, and it is worth adding that it was very important for the research, because it gave an interpretation of change over time (e.g. Santos & Eisenhardt 2005). What the "quasi" preposition means is that there were only two observation points. The preliminary desktop research and the open

interviews worked together to cover the studied cases from when the relationships started to the time when interviews took place.

Because particularly the VC representatives had extremely tight timetables, the interview phase took considerably longer than what was first anticipated. This, however, granted sufficient time to better concentrate on the accessible literature. After the interviews a second observation point was around New Year's of 2008, after the time when ownership arrangements disintegrated and the cooperation relationships terminated. At this stage, however, interviews were not possible anymore, so readily available secondary data had to be relied on. This was still considered satisfactory since it gave an indication of the financial terms of exists with which the cooperation and ownership relationships dissolved.

After the initial case identification, I confirmed the suitability of the participants by a telephone interview with a reporter, Ms. Balu, a Fast Company Magazine journalist and VC industry insider. She was also the person who had written the above-mentioned pivotal article of Arts Alliance that lead to finding the company in the first place. Ms. Balu, to whom I had sent some background information of the research before the phone conversation, assumed that both VCs and start-ups would probably serve the chosen study purpose well.[25]

4.3. The Research Instruments, Data Collection and Used Measures

This section discusses the sources and methods of collecting empirical research material. In conducting the case studies, several sources of collection evidence were utilized:

1. <u>Documentation</u> in the form of researching various studies, magazine articles and newspaper clippings,
2. <u>Direct observation</u> in the form of getting a more thorough picture of what was taking place inside companies. The researcher visited personally all but one company (Atom Shockwave, San Francisco[26]), and

---

[25] Telephone conversation with Ms. Balu on June 13, 2002.
[26] The researcher visited one of Atom Shockwave's New York business locations instead.

3. <u>Interviews,</u> the most important and primary source of evidence for this study.

One should note that the VC investments were made almost at the peak of the so-called Internet/ new media bubble. Consequently, contemporary new media magazines such as Red Herring and Fast Company were of substantial help as secondary data in understanding the mindsets of people in the business.

Field study started with meeting a key informant Esa Kanninen of Sonera Corporation, Finland. This took place in New York City on February 21, 2001. Mr. David Eun of Arts Alliance was next. David was about to leave Arts Alliance, but luckily had time to meet the researcher at the Arts Alliance offices in New York City, October 10, 2001. Systemized data gathering and observation took place in the Arts Alliance summit in London business school, in April 2002.

I interviewed start-up representatives first. This was due to a concern that perhaps VCs ideas, goals and aspirations might have interfered with the impartiality of the interviewer and biased the observation. Mika Salmi, CEO of Atom Shockwave was first, and his interview took place October 2, 2002 at Global Media Holdings, a company partly owned by Atom Shockwave. Soon after this was UPOC's Alex Levine, vice president of operations and carrier relations, interviewed on November 12, 2002. After analyzing the initial material, the third interview took place with Arts Alliance's CEO Thomas Hoegh on March 12, 2003. The final interview with Andreas Lazar of Allen & Co took place considerably later, on October 3, 2003. All the above-mentioned interviews occurred in different locations in New York City.

As my primary source of evidence was these open-ended interviews, a questionnaire worked as backbone for general discussions, and each interviewee was encouraged to present their personal viewpoints and to elaborate. I tried to cover all the study topics as widely as possible in order to get a general idea of what was happening, therefore interviews took usually about 2 hours each, shortest about an hour and a half, and longest up to three hours. Most of the gathered material found its way into the narration, indicating that questions were reasonably well constructed.

There were two separate questionnaires, one for venture capitalists and one for start-ups (Appendices). Actual questions came from the definitions of guiding hypotheses, the literature that represented each domain and the preceding interviews with key informants. The start-up version consisted of six different sets of questions and the venture capitalist version consisted of five. Both had a purpose section first, explaining the intentions and goals of the study. With start-ups, the question sets included the individual project, market orientation, inter-organizational cooperation, knowledge creation, competitive advantage/ cooperation's effectiveness, and general background information of the companies. With VCs, they included the individual investments and their background, inter-organizational cooperation, knowledge creation, competitive advantage/ cooperation's effectiveness, and finally, general background information of the companies.

Less interest was shown to VCs' own market orientation because it was off the research focus, but it was still important to find out why investors ended up choosing these exact companies for financing. It was assumed that the ability to choose a good start-up was where VCs' market orientation was to be found. VC Interviewees answered questions twice, once for each start-up. The general background section covered traditional topics, such as "how many years each company had been in business" and "how many people were employed." At the time of the interview, neither start-up was profitable.

An important aspect in the study is the expectation of the VC-SU collaboration to lead to an improved SU performance; that companies would gain capabilities from cooperation. Dutta, Narasimhan & Rajiv (2005) point out that capabilities are the 'intermediate transformation ability' between resources (i.e., inputs) and objectives, and also that the most significant criticism of the resource based view (RBV) has to do with this very same issue, the conceptualization and measurement of capabilities. Pointing to Porter (1994) and Williamson (1999), these authors state that there has been a tendency of identifying critical resources/ capabilities by comparing successful and unsuccessful companies, which has led to tautology; studied capabilities are always critical. This generates a question of how to measure performance, which includes input resources, such as financial standing and organizational openness, cooperation-induced capabilities such as organizational learning and shifts in market orientation, and outcomes, such as commercial success.

Since I am studying knowledge transformation between these organizations that is anticipated to lead to business opportunity re-assessment and favorably, to competitive advantage, I have a choice to measure either the difficultly provable existence of a capability, or to go directly to measure the outcome, the objective, which in this case is if the cooperation has led to new business opportunities. Further, new product performance and competitive advantage can be studied by using either nonprofit (subjective) or profit (objective) measures, or a combination of these two[27]. Some researchers have argued that profits subsume other measures of alliance success such as achievement of strategic objectives and competitive advantages. There are alliances that are successful as alliances, but fail to achieve profitability. For example, knowledge gained from alliance partners is a measure of alliance success and firms often consider that knowledge as a positive outcome (e.g., Day 1995, Spekman & al. 1999, Lambe & Spekman & Hunt 2002).

The objective measurement method also has other limitations in the research context of this dissertation. First, start-up companies are privately held and under academic scrutiny before their initial public offering. Second, new product offerings can be so novel that a steady income stream has not yet materialized and companies are still paying for their new product development costs. Third, even if income stream would have materialized, growth rates can be so enormous that reliable conclusions can be difficult to draw, diminishing objectivity a great deal. On the other hand, profitability measured subjectively by the views of the managers is "likely to reflect the biases and imperfect information that characterize human decision making. As a consequence, subjective assessments may overstate, or understate the true level of new product performance, leading to correlations that differ from those grounded in objective data" (Ford, Smith & Swasy 1990, Nelson 1974, Henard & Szymanski 2001). This "halo effect" can be particularly evident when a single respondent is used (e.g. Deshpande & Farley 1999, Gonzalez-Benito & Gonzalez-Benito 2005).

Due to the exploratory nature of this dissertation, it is more important to assess the direction that inter organizational cooperation has steered the companies into, rather than to convince oneself with accurate data of commercial performance. While not forgetting its deficiencies, I chose a subjective approach to performance measurement and therefore I decided to

---

[27]For a detailed description see Cooper, R.G., "Product Leadership," Perseus Books 2000, page 135-138

ask the respondents directly how they found business opportunity re-assessments had taken place due to the cooperation. In a positive outcome, I would dig deeper to find the reasons for this, and in a negative outcome I would do the same; find answers why revaluations had not taken place. I also tried to diminish the halo-effect by triangulating the respondent pool and thus interviewing both VCs and start-ups. The decision to study firm performance subjectively also follows the research tradition set by some of the most basic work in new product performance research. (Pavia 1990 Abeele & Christiaens 1986, Calantone & Cooper 1981, Cooper 1984, Cooper & Brentani 1984, Rinholm & Boag 1987).

4.4. Case Analysis – From Research Questions to Empirical Evidence

Let us further look at how data analysis was executed. This discussion follows the introduction to the conceptual framework of the study in section 3.8.

In analyzing the data, I examined how vertical cooperation works between VCs and start-ups and how horizontal cooperation works between start-ups. Further, it was important to find out how VCs carried out their interaction and services with the SUs, and to examine whether the VCs' working styles were dissimilar enough to validate the examination of proposed effects of different VC operating modes.

All research findings were reported under the selected research domains (Table 1):

1) Market Orientation
2) Inter-Organizational Cooperation
3) Knowledge Transfer/Creation
4) Competitive Advantage/ Cooperation's Effectiveness

Table 1. List of Researchable Concepts

Concept		Description of concept	How Concept Shows in Empirical Material
	Domain		
	Market Orientation		
Market Orientation		Refers to what role Market Orientation has on the NPD process	Is there a defined need? In the role of market research and marketing tools used
Openness		How actively SU seeks outside partners and cooperation	In the external sources importance for the SU, and willingness to cooperate
Newness		Level of the "unknown" in the marketplace	In the way how radical respondents see the new product/ service
	Inter-Organizational Cooperation		
Source		With whom respondents cooperate	In discussions with whom, where and why cooperation has taken place.
Consistency		How integral cooperation is and VCs and SUs roles	With the level, manner and frequency respondents report they are/ have been in contact with each other
Response		How important the cooperation is for SUs business	How respondents see they have organizationally received cooperation
	Knowledge Creation		
Trust		What role "trust" as a transferable knowledge asset has	In open discussions about "Care, Love, Trust and Security" as assets they have gained, or given
Enabling Environment		How atmosphere and relationships among participants work/ have worked	Limited observation and how participants report ways, ease, usefulness and outcome of cooperation
Exchanged Knowledge Assets		Which knowledge assets have transferred	As a table of respondents views of the knowledge assets given and received
	Cooperation's Effectiveness		
Benefits achieved		What participants have received from cooperation	Reported positive benefits, caused by the cooperation
Capabilities achieved		What the potentially revenue enhancing outcome of VC/SU cooperation is	Reported benefits that have brought competitive advantage for SUs

Table shows the concepts, descriptions of concepts, and how concepts are demonstrated in the empirical material. Under the market orientation domain I wanted to find out if there was a defined customer need that SUs wanted to fulfill and the overall role of marketing in the new business development

process. It is important to point out that "Market Orientation" is both a background construct (the level of MO without the cooperation) and a subject of inquiry as an outcome of cooperation. Under this domain, I also wanted to find out about SUs openness, how willing they were to seek contacts to outside sources and how radical they thought their product offering was.

Under the inter-organizational cooperation domain, I was interested in with whom, where and why cooperation has taken place, and the consistency of cooperation between VCs and SUs. I was also interested in the organizational response to the cooperation, i.e., how valuable SUs employees saw this cooperation. Under the knowledge creation domain, I looked at the inter-organizational trust, if an enabling environment was present and finally, what types of knowledge assets were discussed and potentially transferred. At the enabling environment, the chance to participate in the Arts Alliance summit was a big help. Finally, under the cooperation's effectiveness domain, I was interested in the positive benefits from the cooperation in general, and the benefits that respondents thought had brought competitive advantage in particular.

Most of the concepts also appear word for word in the data, which would entail that they were well chosen for the purpose. How the analysis worked in practice, was that besides preliminary interviews, some of which were conducted on the phone, all main interviews were recorded with a tape recorder and produced tapes were labeled and stored. On the rare occasions when the researcher could not use a tape recorder, notes were taken. Recorded tapes were transcribed after every interview, and after reading the transcript, I tried to identify tentative response categories, i.e. common themes, which were tested in the following interviews. Each interview was reduced, analyzed, coded and tallied by me. Findings of each independent case analysis were compared. To help the thinking process and to find emerging themes and patterns, I filled a closet's double doors with sticky notes; there must have been a hundred of them when the work was done. The difference between a theme and a pattern in this study was that if answers aligned under a common theme by all informants, and explicitly supported each other, I regarded them as patterns. If two or more informants' answers aligned under a theme, or when differing points of view proved implicitly a theme's existence, I regarded them as themes. The fundamental difference between the two is that I regarded pattern matching true to its name: only if the empirically found

pattern matched the theory induced idealized patterns, would I consider pattern matching to happen. The exploratory nature of this research gave rich material to work on, regardless of the strict limits for actual pattern matching.

In other words the purpose of this study was to examine if the respondents answers reinforced or challenged the premeditated expectations. Care was also taken to be sensitive in identifying any new, un-expected behaviors or issues that needed further consideration. Table 2, below, shows how the research questions, guiding hypotheses and researchable concepts work together.

Table 2. Research Questions, Guiding Hypotheses and Concepts

How Do VC-SU Cooperation Processes Evolve?

> *Start-ups are "open" for external influence*
>> Openness, Newness

How Does VC-SU and SU-SU Cooperation Influence Participants Working Routines?

> *Close cooperation will create a "Ba" like existence, with the ability to create new knowledge*
>> Consistency, Response, Trust

How Does Cooperation Shape SUs' Marketing Understanding and Thus, Business Opportunity?

> *Start-ups' revenue potential is enhanced by the cooperation*
>> Exchanged Knowledge Assets, Benefits Achieved. Capabilities Achieved

The first research question, "How do VC-SU cooperation processes evolve," relates to two guiding hypotheses, "Start-ups are "open" for external influence" and "Close cooperation will create a "Ba" like existence with the ability to create new knowledge," and was answered by looking at the openness of SUs, newness of the SU products, and consistency, response and trust in cooperation. The second research question, "How does VC-SU and SU-SU cooperation influence participants working routines," relates to "close cooperation will create a "Ba" like existence, with the ability to create new knowledge," and was answered by looking at the consistency of the cooperation, how the SUs see they have organizationally received the cooperation and how they see that trust is involved in the cooperation process.

Finally, the research question "How does cooperation shape SUs' marketing understanding and thus business opportunity" relates to the guiding hypothesis that "Start-ups' revenue potential is enhanced by the cooperation," and was answered by looking at concepts of exchanged knowledge assets, benefits achieved and capabilities attained.

4.5. Validity of the Study

In this section I will discuss the four most important considerations of validity for this kind of a research context, namely, credibility, transferability, dependability and confirmability (Lincoln and Guba 1985).

The classical means to judge an objectivist, often quantitative, research approach is by the value of research work, its reliability and validity. Reliability (trustworthiness) measures the level of how much a researcher can trust findings made by chosen instruments, i.e. their consistency. In a qualitative study approach it is more or less about evaluating if it is possible to replicate the study and to receive the same results again. It is about transparency (Yin 1994), to get the same results from the same material, regardless of the researcher.

Validity refers to the accuracy of a measure, that the chosen instruments will actually measure what the researcher intended to measure[28]. Lincoln and Guba (1985, page 317) state that: "since there can be no validity without reliability, a demonstration of the former is sufficient to establish the latter." The traditional way is to divide validity into internal, external and construct forms. Internal validity refers to the generalization of conclusions within a given study itself. External validity is the degree to which conclusions of the study would hold for other persons, in other places and at other times. The construct is the initial concept, notion, question or hypothesis that determines which data is to be gathered and how it is to be gathered (Wainer & Braun 1988). Construct validity means being able to generalize from your measures to the concept of your measures; what you measure, is really what you measure.

When measures are used to assess some theoretical abstracts, validity builds largely on agreements. There are numerous characteristics that are being

---

[28] In qualitative study paradigm the instrument can be regarded being the researcher.

brought to realism based qualitative study paradigm to support, but also to replace these classical reliability and validity considerations. To name a few, there are credibility, transferability, dependability, confirmability, trustworthiness, rigor and quality to contemplate to what extent participants and readers find the study believable. Let us look at the first four to discuss the validity of this research.

Credibility refers to the way the researcher gets a thorough enough picture of the research phenomenon. Matters that help are that the researcher knows about the research area and has an ability to make sure that the findings come from the interviewees and are not a result of researchers views, or opinions. My corporate background helps me as a researcher. I was involved with banking for a decade, and working experiences from Digital Equipment Corporation and Sonera Corporation make me familiar with information technology, communication technology and corporate investments.

In order to prevent researcher's own assumptions from affecting the research findings, there are some measures to take to increase credibility. A large data pool helps, however, in this case the interviewees turned out to be so busy that the material at hand was considered satisfactory in comparison to the extra effort. Theoretical and empirical triangulation (Glaser & Strauss 1967), deep understanding of many research traditions, abductive study framework, and interviewing both VCs and SUs along with the limited direct observation was helpful in this respect. First transcripts of interviews were also offered to the start-ups for evaluation. One interviewee received the material, but didn't comment. Also, a preliminary executive summary of the findings was sent to the principal VC and didn't raise any discussions about potential misunderstandings, etc.

Transferability. The main principle within the qualitative study realm is that study findings are not transferable beyond the study context at hand. However, transferability is about generalizability, where qualitative research and quantitative research differ. While case study findings are not directly statistically generalizable beyond study framework, the researcher can generalize them analytically to the existing theory. The researcher can use a previously developed theory as a template to compare the empirical results of the case study. "Case studies like experiments are generalizable to theoretical propositions and not to populations or universes. In this sense, the case study,

like the experiment, does not represent a "sample," and the investigator's goal is to expand and generalize theories (analytic generalization) and not to enumerate frequencies (statistical generalization)" (Yin 1994, page 10).

Additionally, utilizing the cross-case method approach outlined by Miles & Huberman (1994), Yin (2009) and McCutcheon & Meredith (1993) allows an understanding of the phenomena beyond each individual firm's context and in favorable circumstances can even increase the generalizability of the observations (Eisenhardt 1989, McDermott & O'Connor 2002). The cross-case method with theoretical replication, investigating the phenomenon with potentially contrasting results but for predictable reasons, was considered important.

Dependability refers to how logical and detailed research description is. The researcher can affect dependability a great deal by writing the research in a logical manner. I made case descriptions as thorough as possible and tried to maintain validity, transparency and reliability by taping all the most important interviews, transcribing them and finalizing case descriptions, i.e., databases first, before analyzing this material. Analyst constructed typologies (categories, research domains) might be questionable regarding dependability as well as fairly straightforward conclusions that ensued. However, themes and patterns started to materialize very early on, which, in their own way, strengthened research reliability.

An important issue is how the tacit and explicit elements were understood in the study process, if at all. As will be found out later on, one of the culmination points is the discussion about "care, love, trust and security" and also "energy, passion and tension." The question is, can knowledge assets and their transfer be detected by asking direct questions about their existence? Respondents were not informed about the role of tacit knowledge as a central building material for new knowledge creation. Had a connection been explained, the outcome might have been different, but most likely biased. However, the existence of, say, "care, love, trust and security" works as an indicator, like a canary in a coal mine, of the depth of relationship, and respondents did explain what they meant by these assets in one-on-one discussions.

Confirmability is about asking if gathered data supports the interpretation of the researcher. Are conclusions logical, related to the data and are predictions

of reality without prejudice and are they non-judgmental? It turned out that findings, at least partially, support other findings from research done in this field, which in itself improves confirmability. An important issue here is how the guiding hypotheses lead the research process. Data is organized by generating categories (theory induced research domains), and found themes and patterns are reported under these categories. Categories are buckets, into which segments of text are placed and as such, bound to limit interpretation. Again, categorization was constructed by the researcher and based on literature, which in itself made the interpretations more confirmed to start with.

The effectiveness of inter-organizational cooperation is a difficult issue to measure and report. In a way an easy way out was chosen, since rather than measuring definite outcomes of cooperation, or definite proofs of cooperation-induced capabilities, I chose to measure if prerequisites of a favorable outcome existed. What informants thought was mutually beneficial I took for its face value. Buber, Gadner & Richards (2004) doubt the application of a particular set of rules or adherence to an established tradition and come up to a conclusion that the validity of a research stems more from the appropriateness of the methods, the thoroughness and effectiveness with which they are applied and thoughtfulness of weighing of the evidence. To increase validity, it was important to be able to follow the whole cooperation process from the early start to the dissolving of investor/start-up relationships.

Market orientation's role is fundamental for this research. In the "Implications" chapter, I will further discuss its character in radical settings. This discussion doesn't originate from the empirical material per se, since the respondents didn't bring it up exclusively. It however came as a side product from the abductive study framework. Going through the literature over and over again left the researcher with many questions of MO's suitability in the radical innovation realm. Without this discussion, the study would have been incomplete and it is meant to work as a stepping-stone for future research in this area.

5. Venture Capitalist and Start-up Cooperation – Case Description and Analysis

In this chapter I describe and discuss each of the participating case organizations independently. The primary focus is on the inter-organizational cooperation that has taken place and how it has affected these organizations. The findings and discussions are organized according to the chosen key research domains - market orientation, inter-organizational cooperation, knowledge creation and cooperation's effectiveness.

Many private equity investors regard how inter-organizational cooperation is organized to be of importance to them. Practitioners use expressions such as Chaebols and Keiretsus to illustrate various forms of close connections that VC's and start-ups share. They use these expressions often loosely however, and not necessarily by following their original Korean and Japanese definitions.

After a brief introduction and clarification of companies' businesses, I describe their perceived level of overall market orientation and innovativeness. Market orientation is important, because it assesses companies' overall "openness" and perceived willingness to adapt and accommodate offered support. Innovativeness tells us how radical the new product concept is, i.e. the level of "unknown" they face in the market place. Participating start-ups were asked how they felt about how radical their products were, and for comparison, this was later verified by asking investors their take on this. Market orientation tells the level of approachability, and innovativeness tells about the potential need to acquire new information. In order to find an answer to the study questions, one has to make sure that there is both the need and the ability to attain knowledge.

Market orientation and innovativeness also work in this way as background information and scrutinize companies' individual capabilities, regardless of cooperation. The three remaining domains, inter-organizational cooperation, knowledge creation and cooperation's effectiveness deal with relationships, as

was discussed in chapter four. Here I will be looking for common themes and will draw them together at the "Resource Exchange" sections under each company. At the "Results and Implications" section, I will analyze and discuss these themes along with patterns I was able to draw from the empirical data. Finally, I will compare the suggested guiding hypotheses with the newly found themes and patterns to see how much they match, to answer the study questions. Conveniently, both companies were sold in August 2006, so I was also able to look into the termination of these VC / Start-up investment relationships.

Excluding company introductions and discussions of exits from VC portfolio, all data is based on individual interviews and therefore on the opinions and views of interviewees. Where applicable interviewees are quoted directly.

5.1. Atom Shock Wave

Atom Shockwave[29] works with independent content developers to find and publish casual games, short films and video to meet consumer demand for fun, accessible and unusual digital entertainment. The start-up is a combination of Atom Films, a web destination of short films and animation and Shockwave, a collection of free on-line and downloadable games. At the time of the merger in 2001, Shockwave's on-line advertising revenue model complemented Atom Film's, at that point, off-line film distribution business model. Atom Films 1500-title content catalog and distribution channels were brought together with Macromedia's entertainment content and Shockwave media player technology to make the company a next generation high-tech media hub. The company's business model is to bring together the needs of consumers, content creators and advertisers[30]. The following text is based on interviews with the company's founder, Mika Salmi, and should clarify the company's business practices further. In the rare case there is material that does not originate from him, it will be pointed out exclusively.

Atom Films started operations during the summer of 1998 as a content/ entertainment platform for short films. A short film is by definition a product that is 30 seconds to 30 minutes long and can be of any kind, e.g. a documentary. The merger with Shockwave took place in 2001 and the merged

---

[29] Atom Entertainment, since Jan 11, 2006.
[30] Atom Entertainment website Oct. 17, 2006.

companies employed over 40 people[31]. The company had a wide variety of potential customers from the get-go and the customer base grew fast to include 18 airlines, 42 cable channels and various Internet search engines, namely Excite, Lycos and Infoseek. The original approximately 10 years old business idea grew from what founder and CEO Mika Salmi learned during his MBA studies in France and from his experiences with companies he worked for before starting Atom Films. The initiating force was Salmi's interest in short films and their perceived potential. He felt that particularly in the U.S. there was a clear need for a platform that could deliver short films to a variety of interested customers. The original idea was to establish a TV cable channel, but this changed along the way. One of the key reasons was the Internet, which was gaining more ground and proved to be an exciting media and perfect delivery channel for his purposes.

To start his business, in the spring of 1998 Salmi handed out more than a hundred copies of his business plan to people he knew or was in some other way connected to. With the business plan and accompanied sales pitches, he was able to collect a $725.000 base investment. Money came from many directions and consisted mainly of smaller, individual $25.000 investments. The company was in a strong growth path straight from the start and in the spring of 1999 already cash deprived with 10-12 employees on the payroll. There were not many VC's who were willing to invest in content/ entertainment at that time and that forced him to very delicately consider whom he should approach. With dire need of new capital, issues that influenced his decision-making were financiers' overall role and anticipated input in his company. Salmi contacted some venture capitalists early in 1999 and started negotiating. This led to a coalition of original Atom Film investors, the first to invest at the time were: Allen & Co, Arts Alliance, and Warner Brothers.

Chase Capital was also one of the negotiators in the first round, but Salmi thought the timing was not right for them to step onboard, however, they did join in later. He knew of the different approaches that venture capitalists had, such as Arts Alliance's need for a board seat and strong will to take part in Atom's activities. This was early 1999 however, the peak season for venture capitalism, and time was a scarce resource for everybody in the business. Intentions, compared to what actually happened, were not always close.

---

[31] November 2002 situation.

So, in January 2001, Atom Films merged with Shockwave, a private company. New Atom Shockwave started as a typical Internet –based enterprise; justified expectations, but earnings too low to cover all the costs created by an aggressive expansion. Due to the nature of the business, Atom Shockwave's all IT investments are strategic by nature and thus owned by the company. Money devoted to them is substantial due to millions of web site visitors per month (Table 3).

Table 3. Atom Shockwave's Customer Volume in September 2002

Atom	2,5 million visitors/month
Shockwave	15 million visitors/month
Total Hits	35-40 million/ month[32]

5.1.1. Market Orientation

Atom Shockwave's product and business concepts are radical. The company was the first to package and deliver short films this way. Salmi developed original ideas for business design by himself, evaluated different alternative target segments and did financial calculations accordingly. As he discussed his business ideas, he ventilated mostly with people not in the industry wanting to hear how crazy they felt his ideas were. People he knew within the industry that he spoke with saw that his ideas were good and acted as strong support to him.

One of Atom's original prospects was the airline industry. While studying it closer, he found out that air carriers were big buyers of films and furthermore at the time, many were installing little screens in airplane seat headrests. This, he thought, would indicate a future demand peak for film products. Studying the web, he found out about World Airline Entertainment Association (WAEA), an airline owned trade organization that provides assorted entertainment services to its members.

---

[32] Individual visitors make multiple hits a month.

WAEA runs a yearly fair, where companies have booths to demonstrate film product offerings to potential buyers. Salmi found out that all major film industry players, including Paramount Pictures, Warner Brothers and NBC Television, would be present. Thus, even before the business was formally established, Salmi and his partner decided to take the effort, attend the fair and find out if there is reasonable demand for Atom's products and services. WAEA feedback was promising and experience convinced him that this was a good business to pursue and that there could be a wider market potential.

After hiring a salesperson, Salmi wanted him to take over and handed his airline contacts to him. Business started growing rapidly. People in Atom understood soon, however, that in the new situation revenue from airline industry was not satisfactory. There was a lot of work in selling and delivering films and air carriers paid very little money; $1000-1500 a film was not enough to cover all production costs. Atom's merger with Shockwave and the necessary reorganization made them reconsider their stance in the airline business altogether. "Even though we had so many buyers, we decided that the yearly $300.000-500.000 was not enough for the work we did. Today we still sell to airlines if they want what we have to offer, but now we have a price minimum and we encourage them to buy many movies at the same time.[33]"

Short film business expanded and unfortunately Atom could not keep the marketplace for themselves. All of a sudden, there was a huge amount of companies in the same business area; at some point, there must have been a hundred, competing for the same markets. In addition, quite many well-known Hollywood companies wanted to try this business and joined in. "We started at this point to think how we could differentiate ourselves from these companies. One option was to have more community features, trying to get people more and more involved in the film creation process[34]. We did a vast amount of technical work to allow that you, as a customer, could make your own Atom homepage where you had all your favorite films. You could state what you wanted to do, chat and be more involved in our business. Intention was that our filmmakers also had their pages there, where they could report what projects they were working on, what films they were doing and what else kept them busy. The idea was to combine all these elements, so we ourselves could be somewhere at the back."

---

[33] Direct quotations, like the rest of the text, are based on an interview with Atom Shockwave CEO Mika Salmi at 10/02/02 and a telephone interview with him at 11/06/02.
[34] Idea was Atom Shockwave's own, but it was strongly backed by Thomas Hoegh, CEO of Arts Alliance.

Atom wanted their customers to be able to discuss directly with film people. Opportunities were almost limitless, because the idea was to exploit the Internet's strongest advantage, communication and the ability to join people together. It was an experiment, but also a way to differentiate them. Hollywood companies, in a true Hollywood manner, wanted to do everything in-house and invested a lot of their own time and money. They would say they have a film or an animation idea, invest in it and search for the best writer or drawer, etc., to make it as good as possible. For one thing, this approach was expensive. Atom's approach was totally the opposite and their popularity based on an idea of letting those who knew best, the end-users to come to the homepages and work in this new Internet world. It was a fresh approach, a grand experiment, and they felt it worked.

Unfortunately, there was not much money involved, even though people liked to do these films and were actively participating. What Hollywood knew better was that what counts in the industry are hits[35]. They are the ones that bring new people in and consequently increase your potential to sell commercials to advertisers and films to other companies.

"In our approach there were no hits. What usually happens is that you can only find a hit, but you cannot create one. We had a little controversy on this thing inside the company, since we did not have too much money and then came the Shockwave merger. That was when we decided to stop this thing and moved back to our basic business to find films and to try to find hits. We try to listen to our audience, if they say a certain film is a hit, we will market it more. Our experiment cost us a lot of money and engineering and was difficult to create."

At the core of Atom Shockwave's business idea is to sell their products to other companies, i.e. syndication. Their basic income comes from selling to airlines, TV-companies and other Internet sites and on top of that, they have to grow. "We realized that our core business takes too much time and money compared to what we make. Business is still there, but it costs too much. We put aside all other businesses and concentrated solely on the Internet business. We had an office in Europe for our European customers. There were 14-15 people taking care of sales to airlines and TV-companies, quite many for taking care of a marginal business."

---

[35] I.e. big seller that brings in many customers.

Because of challenges in Atom Shockwave's core business, their general business approach is somewhat experimental. "When we had more money in the bank, we could easily try all kinds of things and we still take risks all the time. We have always had this situation where we know where our basic business is going and how much revenue it brings. It has been growing all along, and we know how much it will be, but it has not been enough. We have to find new things, which bring us more money and this is the reason we have to take risks. It is more that if we do not take these risks, then we would be in trouble and we usually do not take only one, but many. We have to make a distinction as a firm and move on."

To sum it up, in the marketing orientation domain the concepts under scrutiny are market orientation, openness of the company culture and newness of the product offering. Again, the purpose of discussing market orientation is to look into start-ups' overall receptiveness to customer information, whether it is in explicit, or tacit form. Atom Shockwave's business model has sifted along the way due to outside pressures; also, due to the nature of Atom Shockwaves business model, it has to stay experimental in order to find new things (openness). The company was the first to package and deliver short films the way they did (newness). The original idea was a cable channel, but this changed along the way. Before business started there was preliminary market research; deskwork, discussions with people within the industry and outsiders and founders also took part in a tradeshow to test their concept in the market (market orientation). After competition kicked in, there was a deliberate attempt to differentiate and reposition the product by importing various community features into the concept (market orientation).

5.1.2. Inter-Organizational Cooperation

Venture capitalists joined Atom in 1999 at the phase where the product development process was almost over, service already introduced in the market place and major decisions regarding business already made. The most important help that Atom gained was VC arranged contacts. Allen & Co was particularly helpful in introducing the company to many Hollywood people. Atom also got some help in building the business plan and Thomas Hoegh (Arts Alliance, A.A) was supportive with his ideas of adding community features to the service. Other VC's were not that supportive and while they had

a whole amount of ideas, they concentrated on basic issues, such as pushing the need to grow the company's revenue, or market share, etc. "They wanted to point out what their ideas for the most important next step at the time were. They didn't concentrate that much on management issues; rather their utmost role was to bring contacts to other people."

Thomas Hoegh (A.A) had a clear understanding from the get go on how Atom's Internet homepages should function and he was a devoted advocate for the community features. "One example for these is when you come often to our homepages they show you the kind of films you particularly like. As you watch them, we put a check into our database that this person likes these films, and when you come back, we'll show only those films you like." "This was a dream, even though it was clear it was technologically difficult to implement, and we did not know if something like this would have operated in all categories of short films. It would function in areas people were familiar with from the past, like music, TV and maybe text news. We have entirely new films and animation[36] and it is difficult to say what people like, because the product is so new. We never had a real argument, but we felt that maybe at the point where we were, this was not necessarily the most important thing we should do. It could become more important on a later phase of the business."

Arts Alliance has been particularly active in arranging cooperation with other portfolio companies. They have tried a couple of times to set up an Intranet/ Web-area, where all portfolio companies can put information and ideas to work as a hub. The site consists of topics like human resources and financing, but also ordinary things, and you could go and learn from other companies. "Once they sent a couple of guys to every company to gather information of what was happening and to write it down. They went back, assembled what they had learned and placed it on the intranet. Problem was that information grew old so fast that every company should have worked on it constantly to keep it new and important. It was difficult because everybody was so busy. All people were excited and interested, still it did not really work out because of the problems and how hard it was to maintain. It was discontinued consequently, but to put everything in one place was a great idea from Arts Alliance."

---

[36] The interviewee most likely refers to customer driven content and thus, a new approach.

Another way to accelerate inter-organizational cooperation has been to reserve meeting booths at Arts Alliance summits[37]. Despite the efforts, cooperation with other portfolio companies has not taken place on an ongoing basis for Atom Shockwave, but there have been various experiments. "We have tried hard to do business among different portfolio companies, but without that good a result. We have had more dialogue with other companies in our business cluster than with Arts Alliance's portfolio companies. One of their policies is not to invest in same type of companies in their portfolio, because it could be difficult with direct competition inside the portfolio. This is a basic reason, why we don't have that much cooperation."

Atom Shockwave's cooperation outside the portfolio is active. They build business partnerships with many companies, usually short-term assignments with another company. Often it means money moves to one direction, but sometimes companies also try to earn some together. "We have business partnerships at an ongoing basis. Partnerships are built after a very delicate and mutual choosing process."

The two companies, Upoc and Atom Shockwave have had conversations, but no direct cooperation. "If Upoc and Atom Shockwave would work in the exact same business cluster, maybe there would be more direct cooperation. More cooperation inside the portfolio could feel like forced and due mainly, because companies belong to Arts Alliance's portfolio. Atom Shockwave has absolutely nothing against cooperation with other companies, but after investigating member companies, it has seemed a bit unlikely so far."

Particularly Arts Alliance's role as an intermediary is important. Their role has been to suck experiences from one company and to deliver them, either explicitly or implicitly, to other companies[38]. Arts Alliance policy has been not to share confidential information about other portfolio companies' activities. Rather, they discuss in broad terms the possible paths that a start-up could take, with the decisions at hand.

Atom Shockwave has a lot more cooperation with Arts Alliance than Allen & Co. Allen & Co's approach is perhaps more traditional and they have not had a board seat with Atom Shockwave. Cooperation is, however, warm and

---

[37] Author's comment.
[38] Author's comment.

welcome with both and takes place not only between Mr. Salmi and his counterparts, but also in many different organizational levels. Help has consisted of operational consultation, but less about direct resource exchange and support in areas such as jurisdiction, human resources and accounting[39].

Arts Alliance and Allen & Co are somewhat different, although the outcome and value added is much the same. Arts Alliance's summits are important in building a family type of atmosphere among participating start-ups, while Allen & Co's approach is stiffer, professional and Wall Street type. Allen & Co start-ups do not know each other that well and making acquaintances is not the issue, although they probably would not have anything against it either.

To sum it up, in the inter-organizational cooperation domain the concepts under scrutiny are the source and consistency of cooperation and the response to it. Arts Alliance and Thomas Hoegh were supportive and actively helping with ideas and contacts, while others were not that supportive, but concentrated on basic issues, like sales growth. Atom Shockwave has had a lot of cooperation outside the portfolio and a lot more cooperation with Arts Alliance than Allen & Co. They have had discussions with Upoc, but no direct cooperation (source). Arts Alliance has tried a couple of times to set up an Intranet/ web-area, where all portfolio companies can put information and ideas to work as a hub. The problem was that information grew old so fast that every company should have worked on it constantly to keep it new and important (consistency). Finally, the response to community features thinking was not completely positive. Companies never had a real argument, but they didn't see the need the same way at the time (response).

5.1.3. Knowledge Creation with Information Gained

Atom Shockwave has received many ideas from Allen & Co and Arts Alliance. Cooperation has mainly been on an idea exchange level and because there has been plenty, it is difficult to specify or give exact examples of where these ideas have led. "Idea exchange is an ongoing process and it is almost impossible to pinpoint original sources for useful information. There has however not been that kind of direct cooperation between Atom Shockwave and Upoc."

---

[39] Although Arts Alliance intranet website included these topics, (author's comment).

One part of the questionnaire asked about different knowledge assets that the interviewee felt he had gained from inter-organizational cooperation. New knowledge creation needs tacit knowledge assets to cross over organizational borders as a precondition for new knowledge creation. Below is a list of the most important knowledge types (both explicit and tacit) gained from cooperating with the investors[40],

1. Energy, passion and tension (from Arts Alliance, tacit knowledge type)
2. Care, love, trust and security (from Arts Alliance, tacit knowledge type)
3. Brand Equity
4. New skills and know-how (particularly in business administration and organizing business activities, not in technology, tacit knowledge type)
5. Product Concepts
6. Organizational Culture (tacit knowledge type)

Cooperation with the VCs has been ordinary and taken place both inside and outside the board in various meetings and activities. One Arts Alliance employee spent some time in Atom Shockwaves London offices. She worked on a three-month "internship/assignment" with Atom films as a business development manager. The idea was to work with the team to develop Atom's localization strategy for Europe[41]. In terms of resources, it was a full time strategic planning and consulting assignment, which utilized Arts Alliance's contact network (incl. meetings with Lastminute.com[42]). The project included an implementation plan, but at the end of the three-month project Atom merged with Shockwave. Things changed dramatically and eventually led into closing the London office, and none of the work ended up implemented[43].

Cooperation between Atom Shockwave and Arts Alliance has dealt with adaptations of "community features" thinking. "Community features" thinking has been close to us from the beginning and we have been doing many related things along the way. Thomas (Thomas Hoegh, Arts Alliance CEO) started talking about all these things and it is difficult to say if it was he, who introduced us to it. All of us in the company understood that if you get a hold of a customer and make a connection, they will stay with you longer and they

---

[40] Author's comment, division originates from Nonaka, Toyama & Konno, "SECI, Ba and Leadership: a Unified Model of Dynamic Knowledge Creation," at Managing Industrial Knowledge, Nonaka & Teece, Eds. Sage London 2001, page 29. Order completed by the interviewee. More about this division in the upcoming chapters.
[41] I.e. In which countries to create a local site and how local would it have to be, local language with dubbed films, subtitled films, or in English with local elements etc.
[42] One of Arts Alliance's former portfolio companies.
[43] Interview with Natascha Jakobovits (Arts Alliance), Oct. 8. 2002.

want to come back. I do not know if it was originally his or our idea, but he used to work before in a company called Firefly[44], a software company and a music recommendation system, where he was very much involved. When they knew the kind of music you liked, they started recommending you similar types of music. Now with Amazon and others, this is a very popular and standard feature and gives you new ideas as a customer, but again, this is probably where our views slightly crossed. We were not sure if it would have worked on short films, but our basic idea was still quite the same. It would be good if the service would somehow get a hold of people and keep them accompanied with the process. Maybe it is not a recommendation type of thing, but more like; stay with us while we are doing this new product and you can also influence how we do it."

"Contests themselves are very important. In the spring of 1999, and this was even before we opened our site, we started building a community thing. Contest idea is very close to how Thomas (Thomas Hoegh, Arts Alliance CEO) likes people to participate, it is a type of community. We had Star Wars spoof animations played with Star Wars persons and characters on our home page. We asked our viewers to send us a script about an idea what they wanted us to do. After sorting them a couple of celebrities read them and selected the best one and we made an animation out of it. We received a couple of hundred of scripts and ended up doing an animation called "Gungan Show." It was an exciting project to pursue. People saw it was a contest, read about it, perhaps saw an example, typed their manuscripts and sent them to us. Afterwards they followed our site, saw which of the scripts were doing well and waited until the new animation completed. People got hooked to our pages around this thing."

In sum, concepts under scrutiny in the knowledge creation domain are the existence of trust between organizations, proof of an enabling environment and answers from respondents to what types of knowledge assets they think they have received from cooperation. Atom Shockwave does point out that trust is among the assets they have exchanged with Arts Alliance (trust). They also point out that the cooperation has mainly been on an idea exchange level, but that community features -thinking has always been close to them. However, adding community features to a website that serves short films has also brought doubts about their suitability to this purpose. Cooperation with the VCs has been ordinary and taken place both inside and outside of the

---

[44] Firefly was later sold to Microsoft Corporation.

board (enabling environment). The exchanged knowledge assets will be discussed in the results chapter separately and thoroughly.

5.1.4. Cooperation's Effectiveness and Its Conclusion

"Thomas (Hoegh, Arts Alliance) is always looking for ways to bring us portfolio companies together. He has gained so much information by working with all these companies, and has the ability to bring this information to me, which is even more important. He, as an individual, has all this information in his head about different companies and works as a connector, one person. Sometimes there have been also a couple of other persons, but it has not been so important to get together with these different companies. We could naturally talk more with them, but as we do the business we do, we do not necessarily need to talk about straight business propositions. In Thomas and others, I have one source of information of what they have learned from other companies. It helps me to have one person, compared to all these other contacts."

"Ideal in VC cooperation is that you know that they are there and willing to help you. Of course, often the case is that even though they wanted, they cannot help you with your challenges." Help in strategic planning comes from board meetings and idea exchange that takes place there. Both Allen & Co and Arts Alliance have brought competitive advantage to Atom Shockwave. "Arts Alliance has brought competitive advantage by bringing security and a feeling that there is somebody, who is on our side. Allen & Co, on the other hand, is a renowned firm, and everybody in the business knows that they choose well whom they cooperate with. It has been helpful when people say that it's a considerable firm, because Allen & Co has invested in them."

What took place after these interviews; In November 2005, Atom Shockwave bought an on-line game portal, called Addicting Games. This acquisition soared the company's audience to more than 30 million individual users per month. In December 19, 2005, the company launched a new video directory, Addicting Clips, bringing corporate operations to four: Shockwave and Addicting Games for gaming and Atom Films and Addicting Clips for video. Consequently, January 11, 2006 the company changed its name to Atom Entertainment.

August 9, 2006 private investors sold the company after 7 years of cooperation[45]. Viacom (NYSE: VIA, VIA B) announced that its division, MTV networks, had acquired Atom Entertainment for $200 million. It was a move from this big media company to compete with online upstarts, such as video leader YouTube.com. VC Ratings website reported that this trade sale brought 129% absolute return, since the VC invested sum had been $87 million, according to the website. Divvying up the proceeds is difficult, because all the investors held shares. When Atom and Shockwave merged, Atom shareholders got 30% of the new company, but the combined entity went to collect more funding.

Cooperation's effectiveness domain is quite self-explanatory. Achieved benefits were personalized by Arts Alliance CEO's input as a connector. Achieved capabilities, on the other hand, dealt with Arts Alliance as bringing a feeling of security and having somebody on your side. Allen & Co also qualified handsomely by their reputation.

5.1.5 Resource Exchange and Atom Shockwave

In this section I briefly sum up the preliminary themes found from the material. This discussion will continue at the "Results of the Study" and "Implications" chapters.

Two prerequisites for a beneficial resource exchange were fulfilled with Atom Shockwave, innovation was radical enough and the company was open enough to the outside world so that they had a general interest, even a need, to learn and adjust their product offer accordingly. The company was first to package and deliver short films and to use this kind of concept, so there was a lot of unknown territory to explore. Founders were active in looking for outside help and support in this endeavor. For this reason, Salmi had an eye on potential investors right from the start. To get financing is one thing, but he wanted to make sure what the financiers' overall role and input was going to be. He knew that Arts Alliance had a strong will to take part in Atom's activities. Atom Shockwave received many good ideas, but inter-organizational cooperation at the horizontal level, between different start-ups, was not that active and not many ideas came directly from Upoc. However, to keep track of information flow is difficult. As Mr. Salmi pointed out: "Because there is so much

---

[45] Atom Entertainment press room release 08.09.2006.

happening, it is difficult to bring exact examples of these ideas. Many have related to financing like loan structures and so forth, but it is difficult to remember exactly where all these ideas came from and how they were used."

Because cooperation with Allen & Co felt so much scarcer, it was natural that there wasn't that much direct influence coming from there. Generally, VCs input had been in arranging contacts. Arts Alliance brought into the table a heightened interest in community features thinking, getting a hold of the customer. With Atom, it meant trying to get people more interested in the film creation process. Further, Mr. Hoegh's personal impact made a difference both on a personal and organizational level. As was mentioned in the previous chapter, it was good to have one source of information compared to a plethora of contacts. The company didn't have a need to talk about straight business propositions with others in the portfolio. What hindered cooperation on this front was Arts Alliance's policy not to invest in the same types of companies and they didn't share confidential information among portfolio companies either, rather than discussed in broad terms of the possible paths that a start-up could take.

There is apparently a clear distinction of what a VC or other participating company can do to help, in spite of how receptive a start-up is. There is also a difference between idea exchange and product development. Product development decisions are operational problems that require daily follow up. VC interaction seldom takes place, so VC's cannot really participate in it.

Regarding inter-organizational cooperation and issues that can lead to competitive advantage, two aspects made a difference. There is a feel of security, taking place because of a VC's "hands-on approach" and a reputation aspect of belonging to a renowned VC's investment portfolio. An investor's reputation can open some important doors that would otherwise remain closed. In sum, Atom Shockwave's product was radical enough and the company was open enough for cooperation, but horizontal cooperation was not that active. With the information overload it was difficult to pinpoint where ideas came from, but in principal one source of information was regarded beneficial instead of a plethora of contacts.

5.2. Upoc

New York-based Upoc Networks was founded in 1999 with the vision of a service that would let an emerging breed of American mobile consumers communicate with people and companies important to them. It developed a mobile community solution for telecom operators, consumers, media companies and marketers to communicate via applications, such as SMS (text messaging), WAP (wireless Internet), voice and MMS (multimedia messaging). To give an idea of the magnitude, in 2002, the company was responsible for about 4% of text messaging traffic in the United States.

The business consists of four entities: Upoc Marketing, Upoc Media, Upoc Community and Upoc Aggregation. The value these applications bring to consumers translates into increased traffic for telecom operators. Upoc Networks creates integrated mobile marketing campaigns, connecting brands and consumers for long-term relationship building (Upoc Marketing). They work with media companies to mobilize their content, allowing new distribution channels and revenue potential (Upoc Media). Upoc Community is about community applications that connect mobile users, and finally, Upoc Aggregation offers third-party developers access to the suite of telecom connections and messaging tools so that they can offer their messaging-based services to the consumer base. Clients can build campaigns and services in real-time, with Upoc Networks handling short code management, pricing, messaging services, and client billing. Application developers benefit from speed to market with the message delivery toolset so that they can focus on their core competency rather than on building and maintaining direct carrier connections[46].

Besides this introduction and discussion of the termination of VC, start-up cooperation, all data is again based on the informant's opinions in discussions, carried out in 2002. Where applicable I quote the informant directly and place the material under chosen domains after analyzing and coding the taped interviews.

Upoc employs about 36 people[47] and its business idea is a mobile community where a customer can send a message to a group of people by one transaction.

---

[46] Upoc homepages www.upocnetworks.com, November 23, 2006.
[47] November 2002.

The company was not profitable during the interview, but the prognosis was that it would reach black during the year of 2003. Operations are by nature very computer centric and production takes place at Upoc's server farm, a computer center in New Jersey, where the leased computers are solely under their control. The company's business model has remained the same from the start and includes two main themes:

1. To create an application that generates usage and deals.
2. To work with brand and entertainment companies to mobilize their content for a fee.

Carriers (telecom operators) control all traffic on wireless networks. To get revenue share of their fees takes a long time to reach, because not only do you have to prove yourself, but also why carriers would need a third party in the first place. Upoc has contracts with all US carriers, and this generates a significant amount of traffic. The logical next step is carrier induced advertising, which should make SMS and data transfers really take off in the US[48].

Upoc started when Gordon Gould, Alex Levine and Carlo Martino started talking about potential ideas for business. Mr. Gould had a significantly different original idea first; a phone number that follows you through carriers and telephone sets, but this group dropped it and instead started discussing the potential to use text messaging more productively as a platform for various business applications. The initiative started to mold into a mobile community, being able to send one message out to a whole group of people. Alex Levine quit his job as director of technology at Time Magazine and established the company with Gordon Gould in September 1999.

Gordon Gould was an angel investor of sorts at the outset and also Allen & Co connection based on his personal ties. Further, he also knew David Eun, who was working at Arts Alliance New York's office at the time and made the original connection. The first round of fund raising was completed in January/ February 2000 and made $3.3 million. Combined investment came from selected individuals, as well as from Arts Alliance and Allen & Co. At the point when the first board assembled, Arts Alliance became deeply involved and

---

[48] Situation in November 2002.

brought into the picture their best practices guidelines and connections to other portfolio companies.

At the time when VC's appeared, Upoc had a working demo application available on the Internet. Investors did not have that much to do with the early product development, since when cooperation started, there were plans to turn the demo into a robust real application. "We had spent a month and a half building the demo application on a Windows box. Once we got funding, we spent three months turning it into a UNIX and Java based real enterprise level application. We knew what we were doing, that's why they invested."

5.2.1. Market Orientation

As with the previous start-up, this market orientation section looks into the overall market orientation of the company and its motivation and capability to absorb outside influence.

In the early stages of product development, Upoc made product decisions by relying on what appealed to them the most. Besides counting on their own judgment, they had a demo application that they used in social contexts with their friends. The demo application worked well and the product was pleasing. "We pitched people and they would say it was a great idea. That was the easiest way to do it at the very outset, to confirm oneself. So a lot of that kind of stuff, but we didn't have the resources to do any kind of true research."

Upoc followed various known principles of interface design. They had many people from the Web development arena working for them, which was an advantage. In terms of how the product worked, they came up with it by themselves. "We thought about it, how I would want it to work, because we were users. It is not like dog food. We were people who wanted to use the product; it was internal, because that was what we could afford to do and we had pretty good intuition. In the beginning all of this stuff obviously is just internal."

As the company raised money and hired more people they started researching target demographics, which at the outset was the youth market. The original idea was teens, but it became apparent that this focus would leave out a whole group of people in their twenties, who all had cell phones. Teens were

beginning to have them, but not many, and the marketing mindset changed and expanded to consist of people with phones. At this point when focus group interviews started, the company paid people in the chosen demographics either to come in and answer some questions or to use the product. Covered topics dealt with mobile life-style, such as:

- ➢ Do you have a cell phone
- ➢ How often do you use it
- ➢ Do you use the Internet too
- ➢ Would you be interest in getting coupons on your cell phone, etc?

Upoc also tested new versions of the product with different interfaces by asking people what they thought would be useful. "Things got much more hands-on as soon as we could afford to do it[49]. We learned so much, because when you live so close to the product it is hard to recognize where disconnect happens. It has influenced the product enormously, and we do it before every release. If we were making hamburger meat, people would understand the true business dynamics. When you are talking about mobile communities, nobody knows and so it is everybody's best guess what comes out. The people who know best in terms of making those guesses are the people who do it, the managers of teams, because they live it and they breathe it. They can see what's going on and if they are smart, they can take that, and they can use it to point into a direction."

"The VC's can't really point you into a direction other than the general sector. They could say, oh well consumer brands are doing well now, while tech companies are doing poorly, so go for some consumer packaged goods company. However, that is kind of the limit of it. From a technical perspective, they always have some kind of an expert in networking and architecture who can give good advice, although that is like an IT integrator, type of help you can get from somewhere else. In terms of business direction and marketing, if the management team isn't good in pulling that stuff out, if they need help, then it's never going to work."

Upoc's product offering is radical. The company had a clear feeling from the beginning that there would be an opening for their new service. "We felt that there was a need that we would fulfill; the ability to send one message out to

---

[49] Focus group research.

multiple people from a mobile device. There was nothing like that, nobody had black berries back then in 1999, but many people had cell phones. You could call someone at any given time and if you needed to talk to up to five people, you could call each one of them. However, there was no way to do one message, one voicemail or anything, and have it go to all five people wherever they were, regardless of whether there was someone on the computer or walking down the street. There was just no way to do that. We figured from an inter-personal communications standpoint that there was something we were fulfilling nothing else could do. It was taking the fluidity of email lists when you're sitting in front of your computer and extending it out to your life, rather than having it to be this PC-centric experience"[50].

As a result, the technology needed to work on any carrier and any phone, and it had to be a mobile centric application you could use from a PC anytime. You could not send photographs because you could not look at photographs on your phone, and messages would have to have a short number of characters, because that was what you could deal with on a phone[51]. People on PC email mailing lists were used to being able to write section after section, but this was different. It would be more like "I am out in the world and I am using this as a true communications tool for real time planning and interaction. That was the goal that we had."

To sum up, again the concepts under scrutiny at the market orientation domain are market orientation, openness of the organization culture and newness of the product offering. Upoc's original business concept sifted very early on. It was a telephone number that would follow you through carriers and plans, but changed into the message-sending platform to multiple recipients. The company first relied on their own judgment about the product, and also, tested a demo application in social contexts. Things got much more hands-on when they could afford it, and the company started doing focus group interviews for the betterment of the product (market orientation). The company was willing to learn and as an example of this was the concern of disconnect, which means living so close to the product that it is hard to recognize if you get disconnected from your clientele (openness). Finally, they had a clear feeling from the beginning that there would be an opening for their new service. "We felt that there was a need that we would fulfill; the ability to

---

[50] Direct quotations and data content are based on an interview with Upoc CTO Alex Levine on November 12th 2002.
[51] Of course the present day situation is somewhat different.

send one message out to multiple people from a mobile device. There was nothing like that, nobody had black berries back then in 1999, but many people had cell phones (newness).

5.2.2. Inter-Organizational Cooperation

In the early days, Upoc did a mobile implementation for Atom Shockwave. Atom could send out information for their customers about available new movie updates on their site. Cooperation was a little problematic, though. A fundamental problem was that everything on Atom Shockwave requires you to sit in front of a PC, Upoc on the other hand was about mobile. Atom Shockwave would send out a text message that would urge their customers to go to their PC and see a new movie. This was not a great and challenging mobile application for Upoc. The companies met at Arts Alliance's behest more often earlier, but there was not much straight business involved. A question that has probably remained in both companies' minds is; what does a company that is showing video over the Internet have to do with a company about mobile community? Not necessarily much, at least not directly, "We have been trying to work some kind of synergy, but aside from the general things, human resources and IT methodologies, the product, no way, it doesn't show anything in common."

Participating companies have not influenced Upoc very much. "There is very little, in terms of product development that they influence us on. We got general conversations and of course, Thomas Hoegh is a big fan of various levels of expertise that influenced a little bit what we do. I think that in general, he is concerned with how users use the system, the community system. All that is incredibly important, however, for us the thing that comes before it is even more important. People do not understand that a cell phone can do anything. How do you even get them to that point? Once they are in, we do concentrate on them. Because of the realities of the market, we have half a million users after three years. Probably in Europe, we had had 20 million users, I do not know. It is just the realities of the US market, making it a lot more complicated. So, we really have to focus on educating the users."

Upoc has always been consumer focused[52]. In terms of potential mistakes and wrong paths, there have been times when the company was pressured to look more into enterprise focus, which has never been fruitful. "While it seems it could be a good application to send a message out to everyone on the sales team, or whatever the case is, the sales cycles with enterprises just are worse. The fact is that at the end of the day, SMS is really not a business application, it's a consumer application like WAP." Upoc has still always kept the enterprise focus on the list of potential things they could do, but after "sniffing around" they felt that it has not really turned out right yet.

The company also spent a lot of time first focusing on mobilizing entertainment properties beyond providing an application to telecom operators. "I think that really the best thing for us to do is to provide a great application to carriers, so that their users have something to do with the data side of their phones. Mobilizing entertainment properties is an added hook, but it is not the core value proposition of what Upoc is. It is often presented as one, but at the end of the day, getting little pieces of information about music artists or whatever on your phone is all well and good, but what people love to do, is interact with other people, and that's the killer app."

Arts Alliance, more than any of the other VC's, has had an attitude to help guide strategy, tactics and particular technology decisions, and they have wanted to work with other people, not only the CEO's. There have been some relatively useful summit meetings, discussions, and some technical discussions with other CTO's[53]. Arts Alliance's best practices document, which is a specific effort to cone together information and recommendations from their different portfolio companies is also valuable for a new start-up company. Upoc, too, contributed to this document. "It is kind of like a start-up manual; it boils down a lot of what one learns in the first six months of starting a company. I remember when I saw it and read it for the first time I wished I had read it well before starting the company. It would have given me a whole lot of advanced insight. So, they definitely more than any of the other investors we have, made a concerted effort to gather information from their portfolio companies and share it in a way that would benefit everybody. No question about it, that was cool."

---

[52] This, and the following paragraph are heavily influenced by inter-organizational cooperation, thus they are here and not in the Market Orientation chapter.
[53] Chief technology officer.

Not all summit meetings have been valuable, however. Technology is a difficult topic to discuss and arguments can go many ways. "You just get a bunch of technical people in the room and everyone starts talking about the same stuff, you know UNIX versus Windows as your platform, Java versus C. There are arguments for both; there is no reason to say that you should always start a company based on UNIX, there is no reason to say that you should only program in Java. We use Java and UNIX, other of Arts Alliance's portfolio companies use Windows NT and Visual Basic. Therefore, for that type of conversation there is no true answer. It is a technical aspect of something that has to be a business. At the end of the day, if it is a good business idea, you will get Windows NT to work, you will get UNIX to work, it will work, and you make it to work. If it is a bad business idea, both will fail. So, people will get bugged at that "oh no Windows crashes all the time," or whatever the case maybe. But it is just a hard-core technical operations argument, when taken within a larger concept of a successful business, it can go either way."

Arts Alliance got very much involved in Upoc's operations during the first year into the investment. At present Thomas Hoegh and Upoc's crew sit down occasionally and do some brainstorming, which Upoc appreciates. However, the company is running a business that has relationships with every telecom operator in the United States and a half a million users, meaning there is a lot going on. Meetings like that, while interesting, are not immediately going to affect their operations. Apart from Arts Alliance, the rest of the investors have been completely "hands off" in this respect. Interactions with them have only been through the CEO in board meetings.

The best thing a VC can bring to the table is high quality, leverageable contacts within the business that the start-up operates. In Upoc's case, it is significant and real influence towards telecom operators. "As an example a board member from Petrakoff on our board was a vice president of strategy at Print PCS. So, he actually has some access into important people on that mix, and Allen & Co has access to Bill Esrey who is the CEO of Sprint. Nevertheless, that is almost too high-level; a start-up company like us does not work with a CEO. People can tell him at the Allen & Co summit that hey, you should really know more about one of our companies, but at the end of the day, the CEO for Sprint deals with shareholders and bankers. A lot of times those contacts don't really work for us."

There are two united issues a VC could help a start-up with; a real operating experience on how to set up a company and the basic material that you have to do to run and operate a company. It would be very helpful in the early stages if a VC could place someone like an interim general manger to work at the SU for a few months, who could help to set things up. Further, the entrepreneurs are going to understand the technology they are working with. Maybe they are even going to understand about marketing and things like that, but what nobody knows about is insurance, health care and payroll. Help in these issues would be highly appreciated.

Upoc feels they did not get or seek this kind of help. VCs have experience in things like mergers and acquisitions and banking business, but not many of them have run companies before. It is not that meaningful to get general advice, such as that you as a company should increase your revenues or drop your costs. What would be worthwhile would be to hear suggestions about how to leverage your product for further revenue and discuss that.

In sum, the concepts that are scrutinized within inter-organizational cooperation are the source and consistency of cooperation and the response of the start-up. As the Upoc interviewee stated, they met with Atom Shockwave more often earlier and made a mobile application for them, but the cooperation has not worked very well. Further, Arts Alliance, more than any of the other VCs, has had an attitude to help guide strategy, tactics and particular technology decisions, and they have wanted to work with other people, not only the CEO's. Other investors have been hands-off (the source). Arts Alliance got very much involved in Upoc's operations during the first year into the investment. At present, Thomas Hoegh and Upoc's crew sit down occasionally and do some brainstorming, which Upoc appreciates (consistency). Participating companies have not influenced Upoc very much. Finally, the best thing a VC can bring to the table is high quality, leverageable contacts within the business that the start-up operates, but a VC could also contribute a real operating experience on how to set up a company and the basic material that you have to do to run and operate a company, because nobody knows about insurance, health care and payroll (response).

5.2.3. Knowledge Creation with Information Gained

External sources of information played no substantial role in the early stages of Upoc's product and business development. Once the company had the financial means needed, they started focus group interviews and got customer feedback from this source. They also worked with handset manufacturers such as,

- Ericsson, good information on developing a product that worked on WAP and SMS
- AT&T, helpful from a style perspective, had a style guide on how to build a WAP application
- Sprint, also some style guides, good in terms of helping to grow usability of the product

In terms of the functionality of the product, it was still developed internally without outside input.

"What VC's are good at, is finance and pushing entrepreneurs. They look at the business fundamentals, they look at your business plan and they interview the management team. Before they invest, they know that they trust these people to pull it off, and they think their idea is good. However, the idea is always entrepreneurs', not the VC's. They do not come up with ideas, but pay people who come up with them. We made up an industry – mobile community - and we continue to make it up as we go along, because there is no definition, there is no known model. So as a result, it requires an enormous amount of creativity and they do not have creativity. What VC's have, is an approach that is important from a financial instrument's perspective. They want milestones, they want accountability, and they want to be able to know that forecasting can be accurate, that sort of thing. Yet, the fact is with a start-up company you make it up as you go. So, where do you actually gain benefit? It is from creativity, and the creativity comes from the management team. Creativity is in the management team and it is layered upon what the original business idea was."

"We come back to the fact that you need the management team and you need a good business idea. Without those two things, you have nothing. Continued improvements in market capabilities, product quality and customer

orientation all need to come within the management team. The VC does not spend enough time with the product. In general, the board meeting is quarterly or in our case, it is monthly. It's a meeting where they take apart opportunities for cost reduction and the revenue status." The board meeting is not necessarily suitable for product related matters, because "you have to control product discussions and it needs to be the right group of people who are in the mood to think creatively." The purpose of board meetings is different.

Regarding different types of knowledge that Upoc has gained, other organizations' influence has not been that comprehensive. There has been security and tension, but lack of trust, energy, passion and love. Security is of a financial sort, and lack of trust is based on the nature of the game, a constant game of second-guessing. Because it is a business, there is no love in the business either. "David Eun (former partner with Arts Alliance) did put us in contact with some people that helped us with another third party company on some early on usability." This was, however, off the main stream. There is also a chance that the former CEO was better informed and shared more types of knowledge[54], but didn't pass this forward. That is doubtful though, because Alex Levine (person interviewed) was running operations. "I never felt that I was learning from any of our investors at any of these issues. I felt that I was learning, and I felt that I was figuring it out and we were figuring it out. We were making huge effort to get better at it, but it was just because we hired smart people and we got together and figured stuff out."

There have also been introductions to other companies along the way. Due to Arts Alliance one company has been San Francisco based "Pocket this." However, it did not seem to be a very good fit. "I would say that there hasn't been any real cooperation that had resulted in any real difference. I still think that the idea theoretically of the sort of half way between incubator and VC that would result in all these things, is good. It just didn't happen."

In sum, the concepts under scrutiny in the knowledge creation domain are the existence of trust, proof of an enabling environment and the knowledge assets that the start-up gained from cooperation. Starting with trust, the informant states that there has been security and tension, but lack of trust, energy, passion and love. Security is of a financial sort, and lack of trust is based on the

---

[54] (Former CEO of UPOC potentially sharing more knowledge with VC's)

nature of the game, a constant game of second-guessing. Because it is a business, there is no love in the business either (trust). What VC's are good at, is finance and pushing entrepreneurs. However, the idea is always the entrepreneurs', not the VC's. They do not come up with ideas, but instead pay people who do. Finally, in the previous paragraph the informant states that there hasn't been any real cooperation that resulted in any real difference. The idea of the sort of half way between an incubator and a VC is good, but it just didn't happen (enabling environment). Again, the exchanged knowledge assets will be discussed in the results chapter separately and thoroughly.

5.2.4. Cooperation's Effectiveness and its Conclusion

Arts Alliance has actively promoted an atmosphere where cooperation and learning from other organizations is easy. They were especially active in the earlier days, and more so than Allen & Co. Arts Alliance's best practices document has been like a cheat sheet for starting a company, but the VC's are experts in investing in companies, not really in various components of business dynamics. They are more like generalists, who can read a business plan and deem if they think it is a success or not.

On the other hand, the big problem with working with other portfolio companies is that especially in a portfolio like Arts Alliance's, companies operate in such different business areas. "One might be like in on-line music, and then there is us, a mobile community. Our businesses are so different, and that's where the technology best practices come up a lot, as well as certain human resources and that type of stuff." Marketing practices is not on this list. "How an earth could they possibly tell us what to do from a market perspective. Atom Shockwave and we are so totally different, even though people sometimes say that we are both consumer-focused. Well ok, dog food is consumer-focused and so are motorcycles. What is there to learn between those two?"

"With Allen & Co we have no information exchange outside the board, regarding actual day-to-day operations of the company. Allen & Co was involved early on, but its involvement has faded[55]. Arts Alliance has borrowed something from the incubator approach. They have the right idea; it makes

---

[55] Allen & Co's representative at Allen & Co had changed and this probably has something to do with the fading effect for a while.

sense to try to help early entrepreneurs with the things they do not master. Why not give people best practices document, it is a lot more than any of the other VC's did."

"Arts Alliance really tried to collect information and share it in the best way possible. Incubators are just taking it to the even further extreme, where they are like all in one office and there are seven different two-person companies starting up there. The main reason incubators did not work is that the whole idea of a production line of companies is idiotic. We come back to the idea that good ideas and good management are not easy to find. Chances that you are going to be able to start an incubator business, have seven good ideas, and seven good management teams are zero. There is no chance. Whereas Arts Alliance is not that early stage, incubators is as early stage as it gets. Arts Alliance waits until you have displayed the product, built the management team, you have a business plan and you are shopping around. That is a VC's role. You are more mature than the seedling stage that incubators are at, and they do a good job with it."

Associating with a well-known investor is very important to Upoc. "Especially Allen & Co is very well known and very highly regarded. Arts Alliance is also highly regarded, although not as well known. Having them as backers and simply as names have been beneficial for our efforts in the market place when we interact with people who have heard of them. It is like good housekeeping seal of approval. It is like, oh, those are your investors. Ok well then I will talk to you, because you must be doing something right. In terms of them being high quality names to be associated with, it has been beneficial. There is no question about it, but once again, it hasn't been about information exchange."

On August 23, 2006 Dada Mobile Inc, a New York based subsidiary of Dada S.p.A, an Italian provider of web and mobile community & entertainment services, bought Upoc. Dada's business includes a range of paid "Community & Infotainment" products and services for web and mobile platforms with connections to all Italian telecom operators, plus a voice portal in collaboration with Telecom Italia. The company's services are also available in the US, UK, Germany, France and China. According to "Private Equity Week," the sales price was $7 million in cash. One has to keep in mind that this amount of money was paid for a company that had received VC funding in the amount of $27 million at the time of the disinvestment.

In sum, the cooperation's effectiveness domain deals with achieved benefits and capabilities. Arts Alliance has the right idea with the best practices guidebook and other help offered, but the problem is that portfolio companies do not work in the same business areas. Also, association with Allen & Co has been very important to Upoc (benefits achieved). However, the VC's are experts in investing in companies, not really in various components of business dynamics. Arts Alliance has borrowed something from the incubator approach, but even with the best practices and other help, it all boils down to good ideas and a good management team (capabilities achieved).

5.2.5 Resource Exchange and Upoc

Again, in this section, I briefly sum up preliminary themes. Discussion will continue at the "Results of the Study" and "Implications" chapters.

From an inter-personal communications standpoint, Upoc felt that they were fulfilling something that nobody else could do, the ability to send one message out to multiple people from a mobile device, "taking the fluidity of email lists when you're sitting in front of your computer and extending it out to your life rather than having it to be this PC-centric experience." "We made up an industry – mobile community - and we continue to make it up as we go along, because there is no definition, there is no known model." From this standpoint Upoc's product offering can be regarded as radical; they felt a need to educate their users, to construct their own marketplace.

As pointed out earlier, the company's market orientation shows in how they have tested new versions of the product with focus-group research. "Things got much more hands-on as soon as we could afford to do it. We learned so much, because when you live so close to the product it is hard to recognize where disconnect happens. It has influenced the product enormously, and we do it before every release."

The company is responsive to overall market stimuli, but has had more dialogue with other companies in their business cluster than portfolio companies. Arts Alliance's policy is not to invest in the same types of companies, due to the clear threat of straight competition inside the portfolio. Upoc sees this as a potential threat and hindrance, since companies' differing

customer bases limit cooperation to best practices in technology, human resources and other practical issues.[56] There is not enough complementarity and mutual domain. Upoc and Atom Shockwave met at Arts Alliance's behest more often earlier, but with not much straight business involved. "We have been trying to work some kind of synergy, but aside from the general things, human resources and IT methodologies, the product, no way, it doesn't show anything in common." Yet, Upoc did create an application for Atom Shockwave to send text messages to their customers to see short movies.

The VC's impact can also be regarded as limited. Investors can't point a start-up into a direction other than the general sector and when it comes to business direction and marketing, it has to be the management team's turf. A bad management team and a bad business idea with the world's greatest VC firm will not make a difference, because then it doesn't matter how well you execute. The informant felt that there can easily be a lack of entrepreneurial experience on the investors' side and that VC's don't come up with ideas, they pay people to come up with them. Arts Alliance's best practices document of recommendations is valuable, however, and Upoc also contributed to it. The start-up manual boils down a lot of what one learns in the first six months of starting a company.

Arts Alliance got very much involved during the first year into the investment and there were occasional meetings later. Other investors have had a "hands-off" approach and with Allen & Co there is no exchange outside the board regarding actual day-to-day operations. The best thing a VC can bring to the table is high quality, leverageable contacts within the business that the start-up operates. However, the idea (how to execute the business) is always the entrepreneurs', not the VC's. Within new businesses there is no definition, no known model, and they require an enormous amount of creativity. VCs have an approach that is important from a financial perspective with milestones and accountability, where it is important to know that forecasting is accurate. With a start-up company you make it up as you go. Advantage comes from creativity, which in turn comes from the management team.

Cooperation can also bring pressures. In Upoc's case it has been outside pressure to look more on the enterprise focus and mobilizing entertainment properties. Further, while Thomas Hoegh's interest in and concern with how

---

[56] Excluding marketing issues.

users use the system is regarded as important, it has still been more important to concentrate on what comes before, to educate the consumer. Meetings with Arts Alliance have been interesting, but don't affect operations immediately. In general, the investors don't spend enough time with the product to make a bigger impact.

The informant pointed out that it would be desirable to hear how to leverage the product to further revenue and discuss that. However, "I never felt that I was learning from any of our investors at any of these issues. I felt that I was learning, and I felt that I was figuring it out and we were figuring it out. We were making huge effort to get better at it, but it was just because we hired smart people and we got together and figured stuff out."

In sum, Upoc's product was also radical enough and the company was open enough. Arts Alliance's decision not to invest in same type of companies was considered a hindrance and could have been the reason why there was more dialogue with other companies in their business cluster than portfolio companies. VCs do have an indirect influencing mechanism though, since association with a well-known investor is very important to Upoc.

5.3. Allen & Co

In this section I will discuss Allen & Co's relationships with the start-ups from an investor's perspective, first discussing Atom Shockwave and Upoc separately in the "individual investment background" and "inter-organizational cooperation" section, and then together at the "knowledge creation" and "cooperation's effectiveness" sections. The same logic takes place with Arts Alliance, in section 5.6.

Allen & Co started operations in 1922. The private, closely held company does not provide information about its size or operations, which clearly limits usable background information. However, the firm and its affiliated entities have investments (both active and passive) in probably closer to 500 different companies. Investments spread to several different asset classes like new media, consumer products and industrial concerns. "Our position sizes vary from as small as a few thousand dollars in some small, developing companies, to ones like our publicly available position in Coca-Cola, where we are one of the largest shareholders[57]. We have about 160 employees working for us, ranging from investment bankers to traders to back office support; we are a broker dealer so, we have a big back office dock. I would say the people who are actively involved in doing transactions, whether they are principal investments or advisory transactions, that number is closer to about 45"[58]. "We release our balance sheet because we are a broker dealer, but we don't post our earnings. Many people think we have other offices, but the firm has always had only one office, here in New York."

When investing, Allen & Co is as involved as it can be, except for direct involvement in the commercial endeavors of their portfolio companies. "We are pretty actively involved in any company that we have any kind of position in. As a financial advisor, we try to open doors commercially, but going beyond that is really sort of purveying of the company. At some points it just becomes clumsy if we get directly involved in pushing commercial elements into their businesses, that is what they should be doing and what they are best at doing."

The company has a board of management seat with Upoc and gets board of management packages from Atom Shockwave to keep count on what is going

---

[57] Third largest according to the situation in September 2003.
[58] All quotations and data content are based on an interview with Vice President Andreas Lazar on September 22nd 2003, in New York City.

on with the company. Board of management work with Upoc involves fiduciary responsibilities to shareholders, but the meetings are quite open ended. "We spend a lot of time discussing the business. We try to come up with ideas, how the company might go about doing things better and in many ways we do operate as consultants, just because of the nature of these businesses. They are nascent markets and they are developing businesses and they can use and they solicit the benefit of our perspective."

There is a fundamental difference between a venture capital fund and an investment bank (like what Allen & Co's core business is, author's comment) in the way direct investing is being executed. Venture capital companies take a management fee out of the money they happen to work with, as well as having a carried interest in the investments fund members pay them to do. An investment bank, when putting money up, does not have the same management fee benefit. Traditionally revenues come from capital raising assignments, or joining fees on mergers and acquisitions. Because money is coming from their own balance sheets, they are holding the door to themselves, which creates a somewhat disadvantage compared to colleagues in the venture capital business. In theory, they are forgoing what would otherwise be in the core of their business, financial advisory work. A potential solution would be to receive warrants or some other sort of equity for participation, an arrangement beyond the equity derived from the dollar investment for compensating the time and effort put into companies.

Mr. Lazar, knowing the background of the business relationship with Atom Shockwave, is getting more and more involved with the company, even though Allen & Co does not spend that much time with Atom Shockwave now. Atom Shockwave was somebody else's responsibility before, in transition Mr. Lazar's boss and one of Mr. Lazar's colleagues also held the account for a while. Cooperation with Upoc is a lot more active. "I spend right now about 20 percent of my time on Upoc. Upoc is going through many changes and it requires a fair amount of constant attention from all members of the board. In addition to the board meetings, I participate on a weekly call, because I am on a certain committee to find a new executive officer. I am interfacing with other members of the board and with management on an ad hoc basis throughout the week, depending on what circumstances might arise."

"In many cases we try to open doors for Upoc. For example, a couple of years ago they wanted to get together with Coca Cola, and we have a very good relationship with most of the senior people there. We used the resources we could to arrange right level meetings for them. We did the same thing with USA interactive. We do that where we have the ability, which is generally the case with most of the media and entertainment companies, and then other companies with which we have similar relationships."

5.3.1. Investment Background, Atom Shockwave

Institutionally, Allen & Co invests in companies when there is some kind of personal relationship with the management, whether this is direct or through someone else. Relationships are going to give more when there is confidence that new allies are going to work for the betterment of Allen & Co's investment. In Atom Films' case, Allen & Co felt their media and entertainment background would be helpful. When the time would come that the company started talking to studios or other players, they would get them into appropriate places and right people.

Allen & Co has participated in more or less all the major rounds of investment for the merged companies, Atom and Shockwave. They first invested in Atom Films in May of 1999, what was then a series B round. The second investment took place in the next round, about 9 months later. There was a separate investment in Shockwave in around early 2000, and a subsequent anticipatory financing to converge to the merger with Shockwave around late 2000.

Internet had really started taking off during the 24 months before they made the first investment. "As it was with Atom films, we did a fair amount of diligence there. But I would say a lot of people in those years made investments without doing the types of due diligence that would be prudent, and people paid the price for that." Somebody introduced Mika Salmi (CEO Atom Shockwave) to someone close to Allen & Co, and apparently, he impressed people. "We believed that especially with the Internet and broadband, rich entertainment being short films in Atoms case and games in Shockwaves' case, there would be a big commercial opportunity there. We thought if these guys were going to brand themselves and be the first really to establish themselves as the independent company to go to, it could turn into a big economic opportunity."

"At the time I don't think anyone clearly knew how they would get there, a lot of bets back then were being made on faith, and you know a lot of them didn't end up that well. We acknowledged probably that there was risk. It was a speculative business model as many of these business models were at the time. On the other hand a lot of it was a bet on how the Internet would take shape; how entertainment over the Internet would evolve. You could do all the research you wanted to, still you would not get a very concrete answer in the way you utterly can for more traditional stuff, where you might be able to project out demand for certain products and services. Especially in the early 1999 with a focus on a company that would really require broadband to succeed, it was difficult to know exactly how the business plan would pan out. I think people ought to know, there were obvious inherent risks in the investment."

Allen & Co is happy to see that Atom Shockwave is running in a disciplined way after some turns and new starts. There is a lot of money invested in the company and it has taken a while to figure out how exactly they were going to make things work. Many of these businesses went bust and had irresponsible managements, but Atom Shockwave is profitable now. An element that applies also to Atom Shockwave is that many people thought public positioning of a company by virtue, would make it become more of a household name. Issuing many press releases and being active with PR to help build the company value was perhaps over-emphasized, relative to really focusing on the core fundamentals. Many, if not all companies that were part of the Internet era, fell victim to that to a certain extent.

Business has to develop and expand for all the capital to become adequately profitable. "Ideally we would like to see a pathway, so that the money that we put in at all the different stages of investment, would become worth something. I don't think that's clear yet to us or necessarily to Atom." From Allen & Co's standpoint, if the business does not end up growing much bigger than it is now, times will tell that they perhaps invested too early. This is however difficult to know, because of the many changes that are happening to media companies, "you see deals happening that you wouldn't have thought to happen 12 months ago or so. As of right now, based on size of the company and its growth, I would say that we probably invested too early, but only time will tell if that's correct."

5.3.2. Inter-Organizational Cooperation with Atom Shockwave

Atom Shockwave is a distribution company. The idea of computer games and short films is not new, but short films have had a real problem getting any kind of distribution up until now. Because exhibitors have found it difficult to make them commercially viable, they are generally shown in art houses, on airplanes, etc. While considering how radical Atom Shockwave's products are, in a continuum where one end is a radical new product and the other, a revision to an existing product, the informant felt that neither of Atom Shockwave's products was very new. However, the company's delivery mechanism was perceived as radical and innovative.

According to Assael (1986), innovations can be divided at a scale, as being:

- New to both the company and the market
- New to the company but known to the market
- Repositioning of existing products that were new to the market but not to the company
- In intermediate position
- Additions to an existing product line
- Revisions or improvements of existing products
- New products that provide similar performance at lower cost

The informant placed Atom Shockwave between "Repositioning of existing products that were new to the market, but not to the company" and "New to both the company and the market"[59].

When cooperation between Allen & Co and Atom Shockwave started, Atom Shockwave was already in later product introduction stages of their product/ business development process. At present, companies do not spend a lot of time together, but they are in contact about how the business is progressing. If Atom Shockwave would come and ask for some kind of introduction however, Allen & Co would be happy to help.

---

[59] Interestingly, describing the product's innovativeness more like a range than a definite single alternative was how every informant viewed the innovativeness of researched products.

As a financial investor, the company does not generally go deep in providing help in issues like product development. This is something that is in the hands of the start-up company people. Yet, cooperation in other areas is active and done routinely with the start-up and other investors. Commercially and strategically, help is more about opening doors, showing that the wheels are greased for start-ups to get as much as they can out of any relationship that Allen & Co can generate for them. "That's the type of thing that we are best at, opening doors for people. Mika (Salmi, CEO of Atom Shockwave) by virtue has an excellent network and is very well known for many on the west coast. He can open most of those doors himself, so I don't think he feels the need to contact us. However, we would be happy to help him if we could, and he knows that. We offered him, as recently as a couple of weeks ago that he should use us as often as he wants if he needs help with the development of the business. I think that the resources that we have been giving have been processed efficiently, but it's tough, it depends on exactly what we are discussing there."

Allen & Co does not have active cooperation with other companies in Atom Shockwave's business area. However, anytime there is an opportunity for Allen & Co's portfolio companies to work together, the company will make it a priority for the principals to meet. They will sit down and discuss their products and chances on how they might enter into some sort of strategic or commercial relationship. This is one of the areas they can be helpful in, and in theory, it will be an advantage for all the companies. "I believe Lionel and Mika (Atom Shockwave) have met Gordon Gould, who is the founder (Upoc), and they have discussed on different occasions the potential of working together. As far as I know there has been nothing, no commercial relationship has come out, I believe. You know, we have put them together certainly."

5.3.3. Investment Background, Upoc

After discussing relationships with Atom Shockwave, I will now switch focus to Allen & Co's relationship with the other start-up, Upoc.

Allen & Co has become a lot more confident with their investment in Upoc during the last several months, since some very encouraging things have transpired commercially for the company. They invested first in January 2000; Allen & Co was leading the deal with Arts Alliance and a group of

individuals behind them. In summer of 2001 there was a series B financing, which also brought APAX, Advent, Sony and Tribune in[60].

Upoc was Allen & Co's first investment in a wireless text messaging company, yet they had investments in the wireless space from before. They were seed investors in the early 90's in Omnipoint communications, now part of Deutsche Telecom. The goal was to line a big asset build-out and to opt to build a cellular network, namely a GSM network, around New York City. The start-up ultimately merged with Western Wireless and became Voicestream, and later in the hands of Deutsche Telecom, T-Mobile. Allen & Co invested some money and represented the company as their financial advisor in both mergers. Investment was very profitable and besides value gains in invested equity, the company took financial advisory fees from the representation. This deal is an example of the intersection with Allen & Co's principal investment effort and their agency effort.

The company thought that Upoc's business concept was interesting and that the area within the wireless data communications should be emerging. "When you considered how short messaging services were proliferating throughout Europe and Asia and they weren't really that big in the United States at the time, we basically wanted to invest in a company that was kind of focusing on that base and we liked the concept." Because the principal happened to be Allen & Co managing director's stepson, the company has kept an arms length relationship with the investment. However, it has also been important to know the person, and generally a lot of faith is put into personal trust with people prior to investments being made.

The investment was a bet on how text messaging was going to evolve in the United States and how the economics were going to take shape. "Neither of those two things was very well known to anyone at the time and we sort of reviewed Gordon Gould's (principal of Upoc) assessment of how he thought things would evolve. We decided to make that bet, but again it was a speculative venture of investment and we knew that going in." Perhaps a wrong path that they took and had to return from was hiring a CEO who was not the right person on the job. "At the time we thought that the business was really predominantly a marketing services company that was going to generate its revenue by businesses, marketing to our user base by using text messages

---

[60] Other private investors.

over the cell phone. We thought that we would bring in someone who had that type of background. Specifically in David's case (David Sklaver, former CEO of Upoc), he claimed to have deep relationships with advertising agencies. We figured that if he can get us into the door, we can get in to the advertising and sponsorship budgets of the biggest consumer products companies and that would generate revenues for Upoc."

Things did not work out that way. As was mentioned earlier, there is a marketing services component in Upoc's business, but that is only one element of the business. A big part of revenue comes from direct trade with carriers, by promoting use of data communications of SMS and MMS messaging. "We made the wrong decision in our CEO hire. That was not a result of negligence. Again, that was a speculation of how the business was going to develop and as it turned out, we were wrong about that. I would say that we probably waited too long to replace him, because we were willing to give him the benefit of the doubt for a little too long. That I would say, is one of the more major areas with what went wrong and there have been other things too, but with any kind of developing entity you are going to make right decisions and wrong decisions."

5.3.4. Inter-Organizational Cooperation with Upoc

Cooperation with Upoc started early, somewhere at the opportunity identification phase of new product/ business development. Apparently, Upoc's original idea came from looking at the multitude of different devices that were available on the market and Gordon Gould (Founder of Upoc) wanted perhaps to bring them together a little bit more by using text messaging in a way that broadened its applicability. "There were industry sources that he used and he worked with Ericsson for example somewhat, but I think it was more sort of vision of, you know, how to use the different components in wireless devices to further enable them."

Allen & Co advised Upoc in their series B financing, and introduced them to companies they do business with, such as Coca Cola and USA interactive[61]. They have also helped to bring in some of the other investors, APAX as an example. Involvement has been comprehensive and included among other things:

---

[61] What Upoc could offer to these companies, was not discussed.

> ➢ Very active role as board members and investors in the company
> ➢ Helping Upoc think through their approach to the commercial market, and
> ➢ Helping them with management issues

How Allen & Co sees Upoc's product offering is that initially they repositioned an existing product. It was a way to take short message resources and use them in a different way. As such, it is a platform built on an already existing base, configured in a way consistent with the strategic goals of the company. In the innovation scale[62], the informant placed Upoc's product between "in intermediate position[63]" and "new to the company but known to the market."

Allen & Co has a stake and cooperation with some companies in Upoc's business area. For instance, they have an investment in a company called Gold Pocket, which is a mobile game maker. Sometimes Allen & Co's involvement is received and used constructively and at other times less so. They also get feedback. "With Upoc it's almost like a family dynamic that applies to everybody on the board of the company. We talk to each other a lot, we are fairly candid with each other and sometimes people do or say things that other people disagree with. So, generally we obviously collaborate with all with the same goal in mind, but sometimes it seems like a big family that has different viewpoints on things. In terms on how things have been processed, they been processed efficiently in some cases, in other cases they have not been really followed through as well by the company. That diminishes the function of the relevance of the advice that we are giving them in particular situations." In conclusion, Allen & Co perceives them as active in giving business advice.

5.3.5. Knowledge Creation with the Help from Allen & Co to Start-Ups

In this section, as in the following one, I will discuss both start-ups and what added value Allen & Co as an investor has provided for them.

Allen & Co has been trying to be helpful and find new solutions for companies in their portfolio. Start-up companies have many growing pains, many young people work for them, and this is why Allen & Co sometimes comes with its

---

[62] Please check the Assael 1986 dichotomy in section 5.3.2.
[63] Between an existing product and a new product.

own sense of discipline. How to run a business is not necessarily apparent to these companies and consequently, they have been taking a guiding hand on how things would end up. "I don't know if it applies only to Upoc and not to Atom Shockwave, but we have definitely set the tone for the way things get done as they were related for example to the replacement of the old CEO, whom we had to terminate in the spring. I think we were pretty actively involved there and the way we saw things."

Apart from the tangible actions such as replacing CEOs, the intangible resource exchange element can work as a basis for new knowledge creation[64]. In Allen & Co's case, there is also a clear difference between cooperation taking place with Atom Shockwave, compared with Upoc. Perhaps the most important thing that has come up with both start-ups is brand equity and the way they can promote themselves by who their financial backers are. This was even more apparent earlier in time. "A lot of these companies back then[65] would show who their shareholder was, and that was one of the things that they promoted themselves with. They would say we are at Atom films or Atom Shockwave and our investor is Allen & Co, and people would say, Oh Allen & Co, well they know the media business."

Below in Table 4, is a list of different types of knowledge assets in order of importance that Allen & Co feels it has shared with participating start-ups.

Table 4. List of Transferred Knowledge Assets, Allen & Co

Atom Shockwave	Upoc
Brand Equity (Explicit)	Brand Equity (Explicit)
Organizational culture (Tacit)	Documents, specifications, manuals (Explicit)
Care, love trust and security (Tacit)	Care, love, trust and security (Tacit)
Energy, passion and tension (Tacit)	Energy, passion and tension (Tacit)
Organizational routines (Tacit)	Organizational culture (Tacit)
	New skills and know-how (Tacit)
	Organizational routines (Tacit)
	Product concepts (Explicit)

---

[64] This includes the knowledge assets, whether mostly explicit information or with deeper tacit elements that do not transfer as easily and directly as explicit elements do.
[65] Before February 2000, when NASDAQ peaked 5000 points.

Immediately next to the knowledge asset is stated whether it is tacit, or explicit. Besides brand equity, Allen & Co believes it has given Atom Shockwave tacit, routinized knowledge in the form of organizational culture (second most important knowledge type), care, love, trust and security, and energy, passion and tension through common experiences, and again tacit routinized knowledge in the form of organizational routines[66]. On the right hand side, Allen & Co believes it has given Upoc brand equity, systemized explicit knowledge in the form of documents, specifications and manuals, tacit knowledge through common experiences in the form of care, love, trust and security (third most important resource type), and so on.

Business and cooperation that has taken place between studied companies was regarded ordinary and in this sense, nothing truly special or remarkable has happened. Particularly with Upoc, cooperation is deep, "we are deeply involved with Upoc, but that's a function of having money and warrants in Upoc, so I wouldn't say anything really, really out of the ordinary."

5.3.6. Cooperation's Effectiveness

The impact of Allen & Co's involvement is not similar for the two studied start-ups. With Atom Shockwave, the low level of general involvement makes the impact minimal.[67] They do have an active hand in Upoc to the extent that they could have opened some doors. It has been productive for the company, however... "A lot of advice is about how the certain companies should be run and how goals should be set and so on. All of which has direct relevance in the progress of the company."

Evaluating the competitive advantage that the investor may have gained from the start-up cooperation is a difficult issue. The fact is that Allen & Co's core business is not in venture capital, but in financial advisory work and mergers and acquisitions. "As our core business is very different, I don't think that, even when we were successful as we were in the case of Spinner in getting equity in and making a lot of money on these investments, that really aides in our core M & A[68] practice. We do a lot of work for big media companies, and I

---

[66] Original division by, Nonaka I, Toyama, R, Konno, N, "Seci, Ba and Leadership: A Unified Model of Dynamic Knowledge Creation," At Managing Industrial Knowledge, Nonaka & Teece, Eds. Sage London 2001, pages 29.
[67] Author's comment.
[68] Mergers and Acquisitions.

think to them, they couldn't care less whether or not we were making money with our principal investments."

"What we have to offer, as investment bankers/ Venture Capitalists in our own way, is access to a network. This firm is, maybe more than most of the other firms out there, entrenched in the media and entertainment business and sort of communications space at large. We provide the companies we have relationships with that access, to the extent that makes sense. In terms of actually getting in and helping them to run the company and making decisions about where we should be setting its goals, that's not really the business we are in. That is more of a consultant's business[69] and I would say that professional venture capitalists are just as much consultants that they are deal people (deal makers, author's comment). They are in the business of working directly with these companies and help their business take shape. We do that as much as we can, but our core business being investment banking, we provide a different service and product to our portfolio companies than a professional venture capital, or a consulting firm would."

Venture Capitalists are bound to deal with the nature of investments they make with entrepreneurs. Entrepreneurs have vision, they follow-up on design and marketing of their products, and what VC's provide to them is a framework by which to develop a business. The entrepreneur may have his/ her idea and the expertise and passion to develop a product, however, he needs to collaborate with someone to build a structural framework for the business. This involves setting up business practices; hiring management and doing all the things that take it from an idea stage, generally driven out of understanding of the market and the product, to a business stage where you have an entity that is set up to ultimately maximize value for shareholders. "Venture capitalists are in the business of doing that; we at Allen & Co are again a different creature, because we don't get compensated for doing that. We don't have any money under management and we don't have any economical arrangement by which we would get a carrier interest or a management fee."

---

[69] The informant points earlier however that Upoc's board works in many ways like consultants for the company due to the nature of the business.

5.3.7. Resource Exchange and Allen & Co

In this section, I again briefly sum up preliminary investor dependent themes. Discussion will continue at the "Results and Implications" chapters.

Allen & Co has a board seat with Upoc and gets board of management packages from Atom Shockwave in order to keep count on what is going on with the company. When investing, Allen & Co is as involved as it can be, but doesn't seek direct involvement in the commercial endeavors of its portfolio companies.

The way business is executed differs between a venture capitalist and an investment bank. Allen & Co's core business is investment banking, so they invest their own money into commercial endeavors and lack the benefit of collecting management fees for holding other people's money. This somewhat affects Allen & Co's venture capitalist arm; in theory they forgo the core of their business, financial advisory, since they don't get directly compensated for the effort. As investment bankers they were seed investors in Omnipoint Communications, which later emerged to become T-Mobile. Not only did they profit in invested equity, but also represented the telecom company as financial advisors in two mergers along the way and got compensated for doing so.

Institutionally, Allen & Co invests in companies when there is some kind of personal relationship with the management, whether this is direct or through someone else. In other words, a lot of faith is put into personal trust with people prior to investments being made. In Upoc's case the principal was a stepson of one of the managing directors. A lot of bets were earlier made on faith; it was a speculative business model where risk was a factor. You could do all the research you wanted to, still you would not get a very concrete answer in the way you can for more traditional markets.

Many people thought before that public positioning of a company by virtue would make it become more of a household name. Issuing many press releases, and being active with PR to help build the company value was perhaps over-emphasized, relative to really focusing on the core fundamentals. Many, if not all companies part of the Internet era, fell victim to that to a certain extent.

132

When cooperation with Atom Shockwave started, the start-up was already in the later product introduction stages of their new product/ business development process. Products were not new, but their delivery mechanism was perceived as radical and innovative. When cooperation with Upoc started, the start-up was somewhere at the opportunity identification phase of new product/ business development. The product was a repositioning of an existing product, a way to take short messages and use them in a different way.

Allen & Co and Atom Shockwave do not spend a lot of time together. With Upoc, their role has been more active. They have been helping the start-up think through their approach to the commercial market and giving a hand with management issues. Commercially and strategically, help is more about opening doors, showing that the wheels are greased for start-ups to get as much as they can out of any relationship that the investor can generate for them.

The investor has been trying to be helpful and find new solutions for companies in their portfolio. Start-up companies have many growing pains and Allen & Co sometimes comes with its own sense of discipline. They offer access to their network, which is important, since the company is entrenched in the media and entertainment business perhaps more so than anybody else. Besides the access, the entrepreneur needs somebody to collaborate with to build a structural framework for the business. That's the investor's turf. To understand the market and the product, that's the start-up's turf.

The most important knowledge type that has transferred between the investor and both start-ups has been "brand equity," which is an explicit knowledge asset. With Upoc there have been product concepts and documents, and specifications and manuals, which are also explicit forms of knowledge. All other knowledge assets had tacit elements in them, including organizational culture, organizational routines, energy, passion and tension and care, love, trust and security.

5.4. Arts Alliance

As with Allen & Co before, in this section I will discuss Arts Alliance's relationships with the start-ups from the investor's perspective, first discussing Atom Shockwave and Upoc separately in the "individual investment background" and "inter-organizational cooperation" sections, and then together at "the knowledge creation" and "cooperation's effectiveness" – sections.

Arts Alliance was founded in 1996 and in the beginning focused its investment activities exclusively on early-stage Internet and new media companies. They have somewhat widened the scope since then and have approximately 30 start-ups in their portfolio at present[70]. Thomas Hoegh, founder of the company had in his earlier life produced and directed various plays, TV shows, large-scale events and rock and roll festivals, making his background in the media business rather deep. There are twelve people working for the company and total investments so far about $150 million. The company has had three funds, the first of which returned three times the investment to its investors. The second fund will mature in about two years and the third fund in about five.

Some regard Arts Alliance as an exception in the VC cluster as a multi-sector investor, thus not concentrating in one industry sector only. It brings unique challenges and advantages and steers the company's decision-making. Their philosophy is posted on their web pages as follows; "the art to successful venture funding is as much in the process as it is in the product. To that end, we have a relatively high degree of participation in our portfolio companies, and we concentrate in leveraging the strengths of our companies across the entire portfolio." Translating Arts Alliance's "high degree of participation in portfolio companies" to a concept used in this dissertation, *I* have regarded it as the "hands-on" approach (author's comment).

As part of their hands-on approach, Arts Alliance uses various tools to help its portfolio companies. Participating organizations have acknowledged particularly the best practices guidebook and the global summit practice. The guidebook is a collection of key learnings, case studies and specific advice. It is offered by senior management of portfolio companies and given to start-ups to

---

[70]All quotations and data content are based on an interview with CEO Thomas Hoegh on March 12, 2003 in New York City.

use when they first become members of the portfolio. Summits, on the other hand, deal with a whole variety of strategic and operational issues. During them Arts Alliance reserves meeting rooms and encourages participating companies to use them for socializing and one-on-one meetings.

Arts Alliance's focus has been consistent ever since they started in 1996; to invest principally in businesses that have a focus on end customer experience and how end customers behave and interact with the media and technology. Building a long-term sustainable relationship with these consumers is the essence of all Arts Alliance's businesses, whether in film, wireless communication, travel, music, or anything else. This is the consistency factor. Inside, there is some variation, where some industries and customer segments have from time to time been more in favor or more interesting from Arts Alliance's point of view. For this same reason the company divested all their music assets in the late 90's and has been investing more heavily into film in the last couple of years.

 Before Arts Alliance makes an investment, they spend a lot of time thinking about what the start-up's optimal boardroom would look like. They try to figure out how the investors' consortium could form in order to ensure an optimal feed of connections and advice for the company. The boardroom is the investors' playground, and what happens outside the boardroom is a factor of what happens inside the boardroom. Very often, it is relatively predictable what is going to happen with a well-managed board, because people have worked beforehand to align interests and to make sure there are no shortcomings.

5.4.1. Investment Background, Atom Shockwave

The company very rarely invests in anything if they are not 100% sure the right management team is in place, and this was the case with Atom Shockwave. Atom Films (before the merger with Shockwave) and Arts Alliance met in the beginning of 1999 and the first investment took place in the spring of 1999. A new round of investment followed in 2000 and the merger with Shockwave accompanied yet another investment in early 2001. Arts Alliance had three years of experience, since the spring of 1996, in the on-line/ media/ media technology business when they made their first investment in Atom. The

company feels, however, that the business area with its actual boundaries is rather difficult to define.

The initiative for cooperation came from Atom Films, as it was Atom Films who found Arts Alliance. It worked both ways, though, "We had been looking for a company in this area, and a lot of people pointed us to them. At the same time, they were looking for an investor and they found us. So, when we met, it was clear this was the case; they knew we had been looking for them and we knew they had been looking for us. There was a sense that we were both ahead of game, which always is a good start for a relationship, because that means there is sort of an undisputed interest in the area."

Atom Shockwave was a good fit for Arts Alliance's portfolio. When Arts Alliance invested, they felt that Atom Shockwave's business was in an untapped market and there was an opportunity and upside others had not seen. A downside was not a big concern at the time, not only because "when you are willing to take that risk, you also have to take that beating when it comes." Arts Alliance was confident with the people working for Atom Shockwave. "People in Atom Shockwave had relevant backgrounds, which is very rare. A lot of people don't have relevant backgrounds in sense that they are either bankers or consultants and have very little management or operational experience." These people had operational experience in relevant businesses; they had been working in entertainment, in charge of start-ups and building businesses. "They had good track records, were respected, and were perceived by everyone else in the industry as the one that is going to be the leader, break through, and build a big business."

What also caught Arts Alliance's eye was that Atom Films was very goal oriented, knew exactly what to achieve, and had a realistic plan to get there. They had a clear proposition for both interest groups, namely consumers and advertisers. Advertising revenue was Atom Film's core business income at the time of the investment, as the Internet worked as a distribution outlet for their products.

Arts Alliance pulled an investment syndicate together. The biggest visible threat was that some felt Atom was valued too high, much higher than Arts Alliance wanted and much higher than they had invested prior to this deal. There were many other investment groups who wanted to get the deal, but Arts

Alliance managed to talk the deal down from a higher level prior to signing up. "So, there was a period of time that was looking like it was not going to happen with us. It was looking like someone else, willing to pay a higher price, would fund them. The best entrepreneurs always have several opportunities; it is almost like something is wrong if we don't feel that there is a competition for the deal."

When it comes to potential wrong paths, Thomas Hoegh (CEO Arts Alliance) believes that he was also guilty of believing Atom Shockwave could grow as fast as it did, without consequences. The company was in many ways, however, just responding to what the market wanted, because there was an unbelievable appetite among end-customers for this kind of service at the time. Besides the customer interest, investors wanted to place capital into the company at a much higher valuation than Arts Alliance did. "So, in hindsight we would have done it very differently. We would have grown slower and we would have made sure we had much more capital and a much longer window of growing the business. For instance, we had offices in multiple cities, always difficult to execute, and we took on advertising commitments that we shouldn't have. In other words we bought advertising that was not necessary and didn't deliver us the benefits that we needed."

5.4.2. Inter-Organizational Cooperation with Atom Shockwave

In a continuum describing the level of how radical a new product is, Arts Alliance perceives Atom Shockwave's product mostly as a repositioning of an existing product. Short films were not something new, but at the same time the public had never seen them as a commercial property either. They were new to the end-customers as a media asset and had potential to give exciting consumer experiences on top of which to sell advertising and sponsorships. It was a new ground in most regards, but the raw material was well known and more re-purposed than very new.

Let's look one more time at the innovation dichotomy (Assael 1986):

- New to both the company and the market
- New to the company but known to the market
- Repositioning of existing products that were new to the market but not to the company

- In intermediate position
- Additions to an existing product line
- Revisions or improvements of existing products
- New products that provide similar performance at lower cost

Here the informant placed Arts Alliance between "new to both the company and the market" and "repositioning of existing products that were new to the market but not to the company."

The companies started cooperation when Atom Films was somewhere in the design and testing phase of their new product/ business development. When Mika Salmi (CEO, Atom Shockwave) came to Arts Alliance he had a good sense on what he wanted to do. An area where Arts Alliance feels they added some value was further widening the very much one-dimensional experience. Customers saw a film, then another and another. There was very little glue between various customers; little sense of community, or of being part of something that other people would be interested in. Arts Alliance may have influenced the company to look deeper on how to position the product in relation to advertisers and sponsorships. Arts Alliance spent quite a lot of time with Atom Shockwave looking at how to do this in an effective way.

Mika Salmi was well aware that there was a huge amount of short films and no one had ever bothered to aggregate them. When the start-up was developing its business, information they gathered was most likely from here and there and not from a single, main source. "One of the things that didn't exist was any good independent research. No one had even bothered to make research about it, no one knew what the value of the market was, and no one knew how much money was poured into that business or extracted from it. Everyone just assumed it was nothing and it was irrelevant to really bother."

Inter-organizational cooperation between Arts Alliance and Atom Shockwave has been taking place in many different ways and in many organizational levels. When Atom Shockwave's European office still existed, they had a lot of cooperation, and one of Arts Alliance's employees, Natascha Jakobovits, worked full time there for a while. Arts Alliance has been working with Atom Shockwave's product development, content acquisition and finance teams, as well as making other connections with the company. The most time consuming

cooperation has probably taken place in looking at the commercial side of things. Support has consisted of:

- Lay-out design
- How customer experience can be improved
- Introducing a lot of people to get access to content
- How to build relationships with advertisers
- How to position the product
- How to make it into a media proposition that is attractive
- Supporting business and building a mentorship to the European operations

Arts Alliance sees their role as advisors in strategy and product development and in managing the other investors. This last topic was particularly important in Atom Shockwave's case; "Everyone had his or her own agenda and to manage that was very difficult for Mika (Salmi, CEO Atom Shockwave). I spent a lot of time kind of behind the scenes, making sure that we had the group aligned. This was particularly difficult when things started to go sour and the company had problems to bridge financing. We are talking about merging and selling the business and so on, thinking what the best route to go is, and this is where the worst in people came out. It was a very difficult situation and I think that's probably where single most important value was provided to the company."

Arts Alliance has also been active in cooperating with other companies in Atom Shockwave's business cluster. Together with Thompson Multimedia Group and Net Partners (European VC group), they invested in a distribution company for television called Smartjog, a spin-off from France Telecom. France Telecom has a stake in Atom Shockwave and a number of other corporate interests and deals with Arts Alliance. Besides France Telecom, Arts Alliance has lots of cooperation with Sony, both their investment and operations arm.

"Interesting enough, the rules of the game and relationships have kind of changed a lot in the last few years, but those relationships (to other investors) that we maintain we see will still be fruitful for having and taking time to build, as we can penetrate those companies much faster when we want to have something accomplished for our companies. The corporate VC arm has proven

to be very productive for us, although they have changed tactics and are almost dormant today from an investor perspective. I am on the board of a New York based production company and we run a cinema chain, and so on. It is quite relevant to what they (Atom Shockwave) are doing. Games however have never been our field. Shockwave business that Atom merged into was not our strong point, but it is still sort of a consumer-media proposition to a large extent, so I mean, it is not bad or complicated."

Cooperation that takes place between Arts Alliance and Atom Shockwave, even though it is an ongoing process, it is not constant. "It is perhaps important to pinpoint that it is sort of an on-and-off process, so that there might be months where I have very little interaction with the company and then there might be months that we are extraordinary busy, and the most important thing is to be there at the right time."

5.4.3. Investment Background, Upoc

Most of the reasoning and background work that Arts Alliance executed with Atom Shockwave, also took place with Upoc. Arts Alliance considers the companies to belong to the same business area, and that on-line and mobile communities are similar and require similar kinds of skills. The first investment took place around New Year's of 1999 and a subsequent round followed in the winter of 2001. There have been no rounds since. This was the first investment for Arts Alliance in the wireless business and the company has been satisfied with it. There will, however, be some changes in the start-up's top management.

Upoc was perceived to have a good, winning team and a good proposition in their hands. Arts Alliance had been following the founder of Upoc, Gordon Gould, for some time and thought he had lots of potential. "I really liked the concept and proposition; I could see this to be attractive to the carriers and I think this could grow to be big beyond nobody had seen. We had already seen then the explosion aftermath (of SMS) in Europe, you know, we saw what was happening."

Threats that came with this investment were associated with the numerous parties involved with the start-up. "It was bit messy, cause there were so many people who had invested in the company. There were so many tiny investors

who wanted to get a chunk of it, so it was a bit of a challenge to make that whole thing come together." At the personal level there was also another type of challenge. One of the investors was also a family member of the founder; Stan Schumann of Allen & Co is the stepfather of Gordon Gould. It is not necessarily easy to have a stepfather, stepson relationship in the negotiations.

Cooperation started in slightly different circumstances originally. "This was in Gordon's prior company, he ran the "Silicon Alley Reporter." They interviewed me several times for their magazine, so we met. I exposed him at conferences, and so on, and then when he was thinking about going into business, he called me and asked if I would not mind having a look at it. And so, we did." In hindsight, a wrong path taken was that the business came to the US market too early. The idea is still good though. "We though we could build a business in helping brands reach to consumers in the mobile world, and I think that was right, but premature. In other worlds, we were a bit before the wave. We gain more success from revenues from the operators than from the brands."

5.4.4. Inter-Organizational Cooperation with Upoc

Upoc's product offer was radical when introduced. Communities were well known, but the entire mobile environment and the product there, were new. Reasons that lead to starting the business must have laid in the inspiration from growing SMS techniques in Europe, and on-line communities that also provided plenty of data to look at. These two reasons brought the confidence that it was going to be big. Some of the investors were also prominent in this area.

In Assael's (1986) innovation dichotomy:

- New to both the company and the market
- New to the company but known to the market
- Repositioning of existing products that were new to the market but not to the company
- In intermediate position
- Additions to an existing product line
- Revisions or improvements of existing products
- New products that provide similar performance at lower cost

Arts Alliance acted as a seed investor and perceived Upoc's product to be the "New to both the company and the market." When cooperation started Upoc was in the early stages of its life cycle. Product experience design was included right from the start, but it was still rough, as the company was somewhere in between the design and testing phase of its new business development cycle. Arts Alliance helped Upoc by looking at the business model, giving constructive ideas, and assisting in hiring many people. Cooperation was deep right from the beginning.

Arts Alliance's role was initially to structure the whole investment deal with Upoc. There has been a good working relationship with Allen & Co and Arts Alliance, but it used to be much stronger before. Partly this is because the relationship with Upoc and Allen & Co has been so tight that it has not necessarily always been easy for the rest of the investors. "The biggest distinction between an investor and all the other investors is that an investor that turns his back on the entrepreneur gets that reputation out pretty quickly." This could have happened to some extent also to Upoc and Allen & Co. There has been more collaboration in the core Arts Alliance/ Upoc relationship lately, because Upoc is getting into an interesting growth area and Arts Alliance believes they can use their skills to help in this situation.

Arts Alliance's European angle and market expertise should be an asset for the start-ups, as is their participation in the "Wireless Internet Venture Association"[71] that gives them access to all operators. Among the help to Upoc, Arts Alliance brought some of their Nordic region investors with activities in the same business area to meet the company. "They knew a lot more about this stuff than we did. They came here to New York and shared information and learned from each other, which I think was very fruitful."

The relationship between Upoc and Arts Alliance has, however, somewhat suffered from the constant restructurings that have taken place in Arts Alliance's New York operations. "As we have restructured our New York office on two occasions, I think they have seen that as being destructive. At the same time I think that they feel that we have supported the company very strongly. It has been hard to be as consistent, because there were some people involved with the business before that are no longer with Arts Alliance. I feel that they would probably say that overall they would be very happy with our

---

[71] A coalition of 8 venture capital organizations that collaborate to invest in early-stage companies taking advantage of broadband and the mobile Internet.

involvement, but that in our perspective, I wished it was more consistent so that the company had the same people involved all along."

5.4.5. Knowledge Creation with the Help from Arts Alliance to Start-Ups

In the same way as with the other VC previously, the next two sections discuss both start-ups and what added value Arts Alliance as an investor has provided for them.

How Arts Alliance has helped portfolio companies to find new solutions is difficult to say, but it may have happened in some instances, "I don't think that any of us will be able to say that with a straight face without sort of feel that it is not completely right. I would say it is impossible to say yes or no to that, but I would say I wouldn't be doing my job, if it weren't the case." A good working environment requires trust, among other things, between participating organizations [72]. To build trust is not very easy, however. "There is no care, trust and security in the industry, but, it is also that there is a difference between care, love, trust and security and what I would focus; tough love. I think that you can only be tough if you have mutual respect, so I would argue that at times, we also have to negotiate, and at times, we are on the opposite sides of the table. I would guess that Mika (CEO, Atom Shockwave) has also experienced that to a large extent."

Thomas Hoegh's personal role in Upoc has been more of a back up and support with less direct involvement in the business. Arts Alliance partner, Victoria Hackett, has been on Upoc's board. "It is not normal that I would have had that deep a relationship with the company, although I have been involved to an extent trying also to categorize how they work and how they think about their product. When things need special attention, then I get involved. Probably the biggest accomplishment we did for them was to manage to arrange money for them when no one else was arranging money. During the worst time we managed to put together a killer syndicate at a very attractive price, and that was deemed by the company as a major accomplishment." A presumable contribution was also a financial management system that Arts Alliance helped the company to build. "We spent a lot of time working with

---

[72] Check section 3.5, "Knowledge Management and Knowledge Creation."

Upoc on its financial management, reporting and control, and I think that was a very hands-on project that took about 6 months."

When it comes to Atom Shockwave, it was not only refinancing, but perhaps also going that extra mile that has made a difference. "You have to stick to your obligations; you have to nurture your taste that your decision of backing people was the right decision." "I don't think these guys need any new skills and know-how, but very often our role is almost like a mirror where many of the answers are there; they just don't see them, because they are so close to the answers. You have to sort of challenge them till they find their own decisions. If you always give decisions to start-ups, usually they don't manage to execute with them, they need to find the decisions themselves. So, asking a series of questions to get to the right solution is often a more productive way of doing it. Where we add the least value is probably patents and licenses. That's not our field."

Below is a list (Table 5) of different types of knowledge assets in their order of importance that Arts Alliance feels it has shared with participating start-ups.

Table 5. List of Transferred Knowledge Assets, Arts Alliance

Atom Shockwave	Upoc
Care, love trust and security (Tacit)	Care, love, trust and security (Tacit)
Product concepts (Explicit)	Product concepts (Explicit)
Energy, passion and tension (Tacit)	Know-how in daily operations (Tacit)
Design (Explicit)	Organizational routines (Tacit)
Brand Equity (Explicit)	Documents, specifications, manuals (Explicit)
Know-how in daily operations (Tacit)	New skills and know-how (Tacit)
Organizational routines (Tacit)	Energy, passion and tension (Tacit)
Organizational culture (Tacit)	Design (Explicit)
Documents, specifications, manuals (Explicit)	Brand Equity (Explicit)
Database (Explicit)	
New skills and know-how (Tacit)	

Arts Alliance arranged a one-day seminar for Leo Burnett advertising agency's customer companies and some of Arts Alliance's start-ups[73], and the company regards this as extraordinary; "I have never heard of anyone, that has done something similar, where you look at the revenue side of the business." They have also been involved in a collective buying procedure contract covering 12 leading Venture Capitalists around the world. This enabled new group priced equipment purchases from Sun Microsystems with after sales services and some promotional cooperation. "Collective buying scheme is still on, but computers are so much cheaper to start with now that it really doesn't matter that much." The company has also been sharing an Arts Alliance Sun Microsystems scholarship for technical students for two years, consisting of a handful of universities in Europe.

Coming back to the enabling context, Arts Alliance has tried to do many things such as the annual CEO summit and smaller summits on specific topics. They recently had a summit for their wireless companies and a couple of participants outside the portfolio to bring more leverage and see if these companies could teach something to the portfolio. "That was also something that is probably quite new, that you take a company from outside your portfolio. We thought they had done something that was quite good and they could maybe learn from our companies in other fields. This year we are also taking two or three of the companies that are in a position where they really need to look at how they can radically grow their business. We are putting all the other CEO's into that conversation to see how they can help them think about their problems, challenges and opportunities in a different light. This is a new thing we are trying this year, a way for them to share, and we will see how it will go."

5.4.6. Cooperation's Effectiveness

Generally, in cooperation, timing is everything for all the portfolio companies. "Just to be there, to be present, doesn't add value. What adds value is to be there when it really counts. That might be for instance when they are working on reviewing their strategy, might be when they are doing a whole revamp of the product development or product experience, or particularly when the company is in trouble. This is probably where the company gets the most out

---

[73] Explained in larger detail in the next chapter.

of it, because that is when they need people to help out with all kinds of things, to maintain stability and to sort of focus and get things done.[74]"

One apparent problem is the geographical location. "I think it has been frustrating for some of these companies that I am so far away. I can't just jump in a cab and be there in the afternoon. It's limited what you can do at the other end of a phone line or an email, so I think that has its own limitations. It would seem that our approach, if we were just focusing on the stuff that is in our immediate geography, would have been more powerful, but when business was built, it was precisely the European angle that was interesting, because it was perceived as being a growth area. They were also more interested in us as people, than they were necessarily from where we were based, so I think that we have to review that in some years to come and see if that still holds."

It can be said that cooperation that has taken place between the two start-ups, Atom Shockwave and Upoc, has been brought on by Arts Alliance. "If there has been any cooperation it has been induced by us. I don't know to what extent that has materialized anything. Atom Shockwave, during the last few years, has been very well managed from a financial management perspective, whereas Upoc has been more in development stages." "Gordon (Gordon Gould, founder of Upoc), and Mika (CEO of Atom Shockwave) have met on a number of occasions, but the feeling is that they are in such different businesses that even though Arts Alliance has tried to make some joint efforts, it has really been difficult to see that they could pitch together."

Because both companies have interest in servicing large brands they took part in Arts Alliance's one-day seminar. Six of advertising agency Leo Burnett's brands met with seven Arts Alliance financed start-ups. One particular deal came out of that as they reached an agreement that Prepaid[75] would put their Splash cards into Kellogg's packs and customers could redeem them by shopping at Last Minute. "The most important thing was actually to speed up the process to get to decision makers and to get the awareness of these companies inside the large advertising company."

Looking at the competitive advantage from Arts Alliance's angle, many things that a VC can learn, take advantage of and utilize, originate from the start-ups. First, there is the reputation. "Investing in companies that are perceived as

---

[74] All quotations by Thomas Hoegh, March 12, 2003.
[75] One of the members of Arts Alliance family of portfolio companies.

being leaders in the industry, people see us as a leader of the industry. There was clearly a period of time, when Arts Alliance was the hottest thing around, because we were backers of all the hottest companies. Similarly, when those companies had a hard time, we were stuck with all of these that were having hard times." From a purely financial perspective, what most VC's would have done would have been to get rid of the "not so good" investments and start fresh. Arts Alliance has been stuck with their investments, but in a position to see that these companies are sort of coming back. "I think that the element of our business which is different, is that our time span is so much longer. We are not so much fees driven as many other businesses in sense that the ultimate capital gain and our long-term position in the market place are what really matter."

Direct gains can also be measured in the level of learned new individual skills, "I have learned a lot from Mika (CEO Atom Shockwave) when it comes to how you manage your relationships with employees. He is particularly clear in his communication and he is particularly upfront about bad news and about keeping people in a very sort of realistic view on the scope of the business and the prospect of their own positions. So, you can treat your employees in a very, very fair and open manner, which I admire. And it is not as if I don't want to do the same, but it's just that it's never been that important to me as other things that I have to do, and I have learned from him to take more time to communicate clearly to our employees."

5.4.7. Resource Exchange and Arts Alliance

As with Allen & Co in section 5.3.7, I briefly sum up preliminary themes with Arts Alliance. Discussion will continue at the "Results" and "Implications" chapters.

Arts Alliance (A.A.) has a board seat in both start-up companies. One A.A. partner works with Upoc and Thomas Hoegh works with Atom Shockwave. As part of their "hands-on" approach Arts Alliance uses various tools to help portfolio companies. Participating organizations have acknowledged particularly the best practice guidebook and global summit practice.

Some regard A. A. an exception in the VC cluster. They are multi-sector investors with unique challenges and advantages steering their decision-

making. Before the company makes an investment, they spend a lot of time thinking about what the start-up's optimal boardroom would look like. The boardroom is the investors' playground and what happens outside is a factor of what happens inside. The company vary rarely invests in anything if they are not 100% sure that the right management team is in place. They try also to figure out how the investors' consortium could form in order to ensure an optimal feed of connections and advice for the start-up.

In Atom Shockwave's case there was this offence of believing that the start-up could grow as fast as it did, without consequences, even though it was in many ways only responding to what the market wanted. Upoc on the other hand started in the US market too early, a bit before the wave, since more revenue is gained from telecom operators than from various advertising brands.

When cooperation with Atom Shockwave started, the company was in the design and testing phases of their new business development project. Short films were not new at the time, but the public had not seen them as commercial property either. Conversely, Arts Alliance was a seed investor in Upoc. When cooperation with them started, product experience was still rough and the start-up was also in the design and testing phases of their new business development. Upoc's product offer was radical, since even though the communities were well known, the entire mobile environment and the actual product were new.

With Atom Shockwave help has been about positioning the start-up's product in relation to advertisers and sponsors. Probably the most time consuming cooperation has been looking at the commercial side of things (i.e. revenue generating assets). Support has consisted of layout design, how to improve customer experience, build relationships with advertisers, position the product and make an attractive media proposition. Furthermore, A.A. worked with the start-up's European operations and introduced a lot of people to the content. With Upoc, help has been about looking at their business model, giving constructive ideas and assisting in hiring many people. There has been more cooperation in the later stages, but at times tight relationships between Upoc and Allen & Co made it more difficult for the rest of the investors. Arts Alliance's pitch at the Leo Burnett advertising agency created one real cooperation agreement and was, among other things, a way to speed up the

process of reaching decision makers awareness of the seven participating start-ups inside the ad agency.

Upoc and Atom Shockwave have met a number of times, because of A. A., but the feeling is that they are in such different businesses that even though A.A. has tried to make some joint efforts, it has really been difficult to see that they could pitch together. Generally, just to be present for the start-ups doesn't add value, but to be there when it really counts, when there are fundamental differences taking place[76]. People don't need new skills or know-how, but very often the investor's role is almost like a mirror where many of the answers are right there. By asking many questions start-ups can find decisions by themselves.

The list of transferred knowledge types that A.A. believes they have conveyed to start-ups consist of both explicit and tacit elements almost evenly. The most important asset that the investor has given to both has been care, love, trust and security, a tacit knowledge asset. This is followed by product concepts, an explicit knowledge asset, also for both start-ups. Third in importance separates assets, giving energy, passion and tension to Atom Shockwave and know-how in daily operations for Upoc, both tacit knowledge assets.

---

[76] Shows new product concepts' evolving nature.

6. The Results of the Study, an Overview of the Chapter

I will now discuss the results and implications that can be derived from the case analysis. Again, the main research domains - market orientation, inter-organizational cooperation, knowledge creation (transfer) and cooperation's effectiveness (competitive advantage) – will be used as an organizing principle. As was discussed in section 4.4. "Case Analysis – From Research Questions to Empirical Evidence," I worked on the data to identify tentative response categories, i.e. common themes. If answers aligned under a common theme by all informants and explicitly supported each other, I regarded them as a pattern. If two or more informants' answers aligned under a theme, or when differing points of view proved implicitly a theme's existence, I regarded them as a theme.

Summary section compares and matches these newly found patterns and themes to the expected patterns provided by the guiding hypotheses. Comparison gives answers to the study questions and thus covers the purpose of this study.

6.1. Case Innovations – Radical or Not?

Let us focus first on the case innovations and discuss how radical they actually were and then look at the level of start-ups' market orientation. Innovativeness tells us how radical a new product concept is, i.e. the level of "the unknown" at the market place and therefore start-ups' potential need for usable market information.

Informants felt that products that ended up in the market place were radical. With Atom Shockwave short films were not something that company by any means would have invented, but they were first to package short films and deliver them using this kind of concept. Both VCs also agreed on this. Allen & Co felt that Atom Shockwave's delivery mechanism was radical and innovative and Arts Alliance suggested that while short films were not something new, they had never been seen as a commercial property either; new exciting media assets that consisted of consumer experiences for which one could sell advertising and sponsorships. It was a new ground in most regards, but the

raw material was well known and more re-purposed than very new. For Arts Alliance Atom Shockwave was an investment in an untapped market and there was an opportunity others had not seen. For Allen & Co it was a question whether the company was going to establish and brand itself and be the first to turn it into a big economic opportunity.

Upoc saw their business offering also as radical. From an interpersonal communications standpoint they saw that the company was fulfilling something that nothing else could do: the ability to send one message from a mobile device immediately out to multiple people. Allen & Co did not however see this product as radical as Upoc did; they felt it was more a way of taking short message resources and using them in a different way. Arts Alliance, using an almost similar type of argumentation had a slightly contradictory view. They saw that although communities were well known, the mobile environment and the product were new. There were growing SMS applications in Europe, but this was all very new in the U.S. For Arts Alliance, Upoc was a winning team with a good proposition; for Allen & Co Upoc's concept was interesting, focusing on an area within the wireless data communications market thought to be emerging.

Atom Shockwave delivered films in a radical way, enabling a potential change and leap to the whole concept of short films. Upoc's product offering was new to the company and particularly new to the American marketplace. In a nutshell, both business approaches were apparently so new that they had no proven and utilizable internal or external models of how to run their businesses. As an Upoc representative put it, "because it's a start-up company, you have to make it up as you go along."

There is no consensus for a formal definition of radical innovation. For my purposes, this is not even necessary. Sanchez & Elola (1991) pointed out the uncertainty and rate of alterations in new product development. Here also start-ups original business ideas were quite different from what they later turned out to be. Atom Shockwave's original business idea was to establish a cable channel for short films, and people who started Upoc were first thinking of a universal telephone number that would follow the customer through carriers and physical locations. Changes were perhaps typical for emerging new media businesses at the time and they were not a result of investor interaction per se; studied venture capitalists came onboard later, when start-

ups had already taken their new courses. This is also my **first theme**[77], how tentative new business ideas were and how they both changed radically along the way. It is almost as if entrepreneurial urge was the decisive factor. Apparently, the original common denominator with Atom Shockwave was short films and with Upoc, telecommunications business, and they worked their way up.

As was stated in section 3.2. "New Product and New Business Development," McDermott & O'Connor (2002) discuss two classes of innovations, competence enhancing innovations that strengthen a firm's position within familiar markets and on the other hand, innovations that fall to a category where the market is not clearly identified or yet developed. In McDermott & O'Connor's study the latter was more common, and both product development cases also in this research with altering product concepts and varying target audiences make them fall into this category[78]. Because of ongoing adjustments the level of the un-known was sizeable enough and eliminated the need to pinpoint how radical start-ups at the end actually were. All informants didn't have to agree on the radical nature of upcoming services, since start-ups were in need of objective market information, just like any company with a radical product innovation would have been.

6.2. Market Orientation

Market orientation is an important capability (or a combination of capabilities), because it describes a firm's overall "openness" and perceived willingness and capability to adapt and accommodate the offered support.

Both start-ups were open and experimental. Atom Shockwave's way was to look constantly for alliances and partnerships, and they also contacted Arts Alliance first. How did other companies find each other? Arts Alliance found Upoc due to the personal ties to its founder, with whom they had worked before in other circumstances. Allen & Co had a family tie with Upoc, and Atom Shockwave was found through people close to the company. Institutionally, Allen & Co goes to companies when there is some kind of personal relationship with management, whether direct or through someone else. The idea is that investment decisions are easier when there is someone

---

[77] In section 6.5, "Summary of Results" there will be a comprehensive list of these themes and they will be discussed further.
[78] More about this in the next chapter.

they can trust and who will work for the betterment of their investment. It is also about helping start-ups with investors' own networks. With Atom this has meant giving their entertainment and media background for start-up's advantage.

Arts Alliance concentrates on the management team and hesitates to make an investment if the right, supportive management team is not in place. Undoubtedly, principals of the start-ups have a pivotal role in assuring potential investors when first rounds of investments are made. It may be a coincidence how these companies connected, but perhaps media circles are relatively so small and also international that VCs actually don't have to go that far to find what they are looking for. This is my **second theme**. After all, VCs' competence seems to be at least partially in the industry knowledge, or people with the industry knowledge. It is the start-up principals who win funding agreements, and it would seem that they often belong to a presorted bunch.

Market research efforts started with a lack of disposable funds and it caused some prioritizing in both SUs. Principals researched their markets first as an in-house effort and executed new product testing intuitively in social settings with peers, friends and other inner circle. After getting financing and revenues both start-ups continued systematic market research to stay on top of what their customers feel about their services. With Upoc this meant focus groups and product testing before new releases. With Atom Shockwave it meant in-house online surveys, data mining, demographic profiles, etc., and the use of purchased data from companies that study their audience base.

Both companies have been active in seeking outside cooperation in their respective business fields. This would indicate that at least their business practices have not hindered them from:

- Looking for inter-organizational cooperation, and
- Finding out in what ways the market place reacts to their product offering

However, in the interview with Upoc, roles of the investor and start-up became very clear in this regard. The interviewee felt that in terms of business direction and marketing, if a start-up needs help in these areas, then there is a good chance that the business will fail.

154

Target customer groups for both companies have changed along the product evolution. Upoc's target demographic was at the outset teens, but later expanded to the wider youth market. Atom Shockwave first focused on the airline industry, but soon understood that this, in the long-term, was financially unsatisfactory at least as a single revenue source. Because the basic business did not create enough revenue to support the cost structure and growth, its business had to be experimental and risk prone. This is my **third theme**, which supports the discussion in the previous section. Market was not clearly identified or developed for the innovations and start-ups were fine-tuning their product offers constantly. With Upoc it also meant dealing with telecommunication companies, corporate customers and looking for potential advertising revenues.

Summarizing market orientation, both SU companies have been active in trying to learn about their marketplace and willing to make changes in their product offering and target audience when needed. They have been open and willing to adjust, in other words, they have been market oriented at least to a level that has not diminished their chances to acquire outside information.

6.3. Inter-Organizational Cooperation

In this section I will first discuss respondents views on where they saw the SU life-cycle inter-organizational interaction to have started. I will move next to discuss different factors of cooperation, followed by related themes and patterns that were found in the data.

Thomas Hoegh (Arts Alliance) was on Atom Shockwave's board, whereas Andreas Lazar (Allen & Co) was on Upoc's. Allen & Co didn't have a board seat with Atom Shockwave, and Arts Alliance's representative in Upoc was Victoria Hackett, interviewed earlier in the process. While the answers clearly supported each other about the time when cooperation was regarded to have started along the new product/ business development trajectory, there was a tendency for investors to put the cooperation start a tad earlier than the start-ups.

This is how interviewees reported cooperation's start.

Upoc: VC's joined when demo application was already working

<u>Allen & Co</u>: joined Upoc early, somewhere in the opportunity identification phase of new product/ business development

<u>Arts Alliance</u>: joined Upoc somewhere in the design and testing phase of start-up's business

<u>Atom Shockwave</u>: Product development was almost over and the service was on the market when first investors joined in

<u>Allen & Co</u>: came in to Atom Shockwave in the later product introduction stages

<u>Arts Alliance</u>: joined Atom Shockwave somewhere between design, testing and introduction stages

This can be an indication of the dilemma mentioned earlier; question of what roles product development (as a separate issue) and business development (as a wider issue) have. Business development covers, besides product development, also all the other elements of building a functioning business enterprise. Start-ups felt their products were closer to market when cooperation started. My **fourth theme** is the way in which VCs regarded cooperation to have started earlier in the development process than start-ups did. Investors might have been more realistic about the amount of work needed to get the product on the market, and they were perhaps able to look at the business from a wider perspective, because their potential financial rewards were years away in the form of public offerings or mergers.

<u>The first pattern</u> I found was that horizontal cooperation between start-ups had not really taken off, and according to the pattern rule, all informants agreed on this. Upoc did a mobile implementation for Atom Shockwave in the early days, an application about new content on the company's web site, but it still required a physical contact with a PC to gain access to the films. Upoc felt that while cooperation with Atom Shockwave had been important and interesting, it had not had an immediate impact on their business. Atom Shockwave agreed. Cooperation with other portfolio companies had not taken place on a regular basis. Attempts to do cross business had not generated any good results.

The reason they felt that way was that there were no similar companies in portfolios to cooperate with. This would support findings also by other researchers, e.g., Möller and Törhönen (2003) that organizations must have sufficient "common ground," or joint knowledge, that facilitates a mutual learning process, and companies with widely different technologies and business systems have great difficulties in trying to co-produce value. While a lack of similar companies doesn't necessarily need to prevent a "Ba" for new knowledge creation to surface, it may hinder getting the right mix of people and an atmosphere where organization members feel safe to share their knowledge (e.g. Nonaka, Toyama and Konno, 2001).

This finding would indicate that only a different business area is enough to deter deeper cooperation, at least when accompanied with straightforward business orientation. The most important help Atom Shockwave felt they had received from investors was arranged contacts. Upoc had similar views and added that they should be of high quality and leverageable within the start-ups' business area. The need to utilize leverageable contacts is my **second pattern** to which everyone agreed. With Allen & Co this meant bringing their portfolio of media business contacts to start-ups, and Arts Alliance was also active within their "hands-on" approach. This finding is in accordance with Hansen, Chesbrough, Nohria, Sull, (2000) findings from the incubator business; contacts are regarded beneficial.

Upoc also praised best practices (Arts Alliance's instructions book for portfolio companies) as valuable. They felt that Arts Alliance more than anybody had made a concerted effort to gather information from their start-up portfolio and distribute it. Atom Shockwave shared this opinion and pointed out that besides being active in arranging cooperation, Atom Shockwave found Arts Alliance's role as an intermediary between different information sources very important. They felt that there has been no need to go to all the companies, when this one source had filtered, sorted and provided valuable information for them. This Arts Alliance's role as an intermediary between different sources is my **fifth theme.**

VCs have wanted to share their ideas on what the next steps of the companies should be. As a potential downside, the ideas have usually been somewhat basic and often concentrating on processes such as the need to grow the

company's revenue, market share, etc. My **sixth theme** is the uneven way in which investors gave their time to start-ups. According to Allen & Co they have had investments and cooperation in Upoc's business space and an active hand in promoting the business of the company, but their impact in Atom Shockwave has been minimal with no active cooperation with other companies in their business space. Further, Atom Shockwave knew of the VCs' different approaches and Arts Alliance's determination to take part in their activities. Cooperation started early in 1999, however, that was the peak season for venture capitalism when time was a scarce resource for everybody. Intentions were not always close to what actually happened. Arts Alliance points out that cooperation with Atom Shockwave has not been constant. It has been an on-and-off process where the most important thing has been to be there for help at the right time, when it counts. In addition, Arts Alliance's Intranet/web-area has worked as a very suitable platform for communication, even though everybody has been so busy that people have sometimes forgotten to update it.

Allen & Co feels that help has been more about opening doors, greasing wheels, setting the tone, and taking a guiding hand on how things would end up. Arts Alliance suggested that their role was often to act like a mirror. Many of the answers were right there but start-ups just did not see them, because they were too close. They claimed that an investor needs to challenge start-ups but cannot make, or dictate decisions, because it would not go anywhere. Allen & Co's has helped Upoc in solving management issues and thinking through their approach towards the commercial market. Arts Alliance has brought added value to Atom Shockwave by trying to widen what was seen as a one-dimensional experience, with more community features and new ways to position the product to advertisers and sponsors.

Seventh theme is the uneven way in which investors' help has been received. Upoc felt that most help has come from outside of the portfolio and what is needed is creativity. This has to come from the management team and it builds upon the original business idea, therefore it cannot come from VCs per se[79]. Atom Shockwave felt that investor cooperation related mostly to community features thinking, but access to new people has also been important. They further implied, however, that it is difficult to pinpoint where all the ideas and connections exactly come from, with so many things happening at the company all the time.

---

[79] However, bear in mind that both VC's representatives were on Upoc's board of management.

Wrong paths that had been taken during the length of cooperation were discussed in interviews and organizations' views varied. My **eight and final theme** is the perhaps natural way in which start-ups saw these wrong paths to have been product centric and connected to VCs' views on their core product offering and how, on the other hand, VCs saw them as wider issues on how start-ups whole businesses were set up.

Starting with VCs, Allen & Co felt that there used to be a general misguided element of thinking that lots of press releases and being active in PR would have helped to build company value single handedly. They saw that, with Upoc, there was too much weight on marketing the services component and a wrong choice of CEO, since revenues kept coming directly from carriers and not from other companies. Arts Alliance thought that particularly with Atom Shockwave there was an "offence of believing" that a start-up could grow very fast without consequences. They also shared an understanding with Allen & Co that Upoc was ahead of its time, since the company got more revenues from operators than from brands.

Following with SU's, Upoc felt that they had been somewhat pressured to focus their marketing on enterprises, which had not proven to be so fruitful, and they felt that instead the interaction with other people was the real killer application. Atom Shockwave had been a little worried about the extended interest in community features, since even though differentiation is always important there had not been much money involved on that path yet.

6.4. Knowledge Transfer, Knowledge Creation and Effectiveness of Cooperation

In this section I will continue the discussion by looking at the transferred knowledge assets from both sides, what SUs gained and what VCs gave. After that I will look into the new knowledge creation spiral (SECI model) and argue why my findings suggest that the case findings leave the SECI model incomplete regarding the possibilities for new collaboration-based knowledge creation.

Figure 18 displays knowledge assets that were transferred through the relationships between the two VC corporations and the two start-ups. They are

organized according to the principles suggested by Nonaka, Toyama & Konno (2001). Respondents stated what types of assets had been present because of cooperation, start-ups what they had gained, VCs, what they had given. The three most important assets were numbered as shown by the figure, all the others that would apply were also mentioned there.

Experimental and routine knowledge assets of the left side contain tacit elements, thus making them difficult to grasp, evaluate or trade, and it should be noted that besides these assets, the other two elements of knowledge creation, namely the SECI process and "Ba" (enabling context) have to interact with each other organically and dynamically in order for new knowledge to take place. It is also important to emphasize that knowledge assets are at the same time inputs, outputs and moderating factors in the knowledge creation process. Trust among organizational members is created as an output of the process, and, at the same time, it moderates how "Ba" functions as a platform for the whole process (Nonaka, Toyama & Konno (2001).

Abbreviations in bold are among the three most important knowledge assets that a VC regards they have given to a start-up. Abbreviations that are underlined are assets a start-up regards they have gained because of investor cooperation. If a start-up can point where the knowledge asset comes from, this is mentioned. In the figure A.A=Arts Alliance, A.C=Allen & Co, A.S=Atom Shockwave and U=Upoc.

Experiential Knowledge Assets	Conceptual Knowledge Assets
Tacit knowledge shared through common experiences • Skills and know-how of individuals. A.C⇒U, A.A⇒A.S, A.A⇒U, <u>A.S</u> • Care, love, trust and security **A.C⇒A.S 3.**, **A.C⇒U 3.**, **A.A⇒A.S 1.**, **A.A⇒U 1.**, <u>A.S⇒A.A 2.</u>, <u>U. (financial security)</u> • Energy, passion and tension A.C⇒A.S, A.C⇒U, **A.A⇒A.S 3.**, <u>A.S⇐A.A 1.</u>, A.A⇒U, <u>U. tension</u>	Explicit knowledge articulated through images, symbols, and language • Product concepts A.C⇒U, **A.A⇒A.S 2.**, **A.A⇒U 2.**, <u>A.S</u> • Design A.A⇒A.S, A.A⇒U • Brand Equity **A.C⇒A.S 1.**, **A.C⇒U 1.**, A.A⇒A.S, A.A⇒U, <u>A.S 3.</u>
Routine Knowledge Assets	Systemic Knowledge Assets
Tacit knowledge routinized and embedded in actions and practices • Know-how in daily operations A.A⇒A.S, **A.A⇒U 3.** • Organizational routines A.C⇒A.S, A.C⇒U, A.A⇒A.S, A.A⇒U • Organizational culture **A.C⇒A.S 2.**, A.C⇒U, A.A⇒A.S, <u>A.S</u>	Systemic and packaged explicit knowledge • Documents, specifications, manuals **A.C⇒U 2.**, A.A⇒A.S, A.A⇒U • Database A.A⇒A.S • Patents and licenses

Figure 18. Shared Knowledge Assets, General View

Starting with the upper left corner Allen & Co stated that they had given skills and know-how to Upoc, and Arts Alliance stated that that they had given these same assets to both SUs. Atom Shockwave acknowledged they had received these assets without naming the source. Allen & Co stated that they had given

care, love, trust and security to both SUs as their third most important asset. Arts Alliance stated that they had given love, trust and security to both SUs as the most important asset they had given. Allen & Co had given energy, passion and tension to both SUs. Arts Alliance had given these to Atom Shockwave as the most important asset, which Atom Shockwave acknowledges as the most important asset they had received from Arts Alliance. Arts Alliance gave energy, passion and tension to Upoc as well, but Upoc acknowledges only having received tension without naming the source.

In the upper right corner Allen & Co had given product concepts to Upoc. Arts Alliance had given these to SUs as the second most important asset and Atom Shockwave acknowledged receiving these without naming the source. Arts Alliance had given design assets to both SUs. Allen & Co had given brand equity to both SUs as the most important assets. Arts Alliance regards that they had given this same asset to both SUs. Atom Shockwave acknowledges receiving this asset without naming the source.

In the lower right corner Allen & Co states that they had given documents, specifications and manuals to Upoc as the second most important asset. Arts Alliance had given these to both SUs. Further, Arts Alliance had given a database asset to Atom Shockwave.

Finally, in the lower left corner Arts Alliance states that they had given knowhow in daily operations to Atom Shockwave and this was also the third important asset they had given to Upoc. Both VCs gave organizational routines to both SUs. Allen & Co gave organizational culture assets to both SUs and it was the second most important asset they gave to Atom Shockwave. Arts Alliance also gave organizational culture to Atom Shockwave, and they acknowledged receiving this asset, without naming the source.

Let us split this knowledge asset figure now and first look at the investor view and after this to the start-up view to see how they differ from each other. Again, if the asset is in bold (Figure 19) it belongs to the three most important assets that a VC has shared. VC source abbreviation is mentioned if one of them regarded this asset belonging in the top three.

In the three most important shared knowledge assets Arts Alliance had one more tacit knowledge asset than Allen & Co and also their most important

asset for both SUs, "care, love, trust and security" was tacit, thus providing more opportunities for new knowledge creation. They also provided explicit knowledge in the form of "product concepts" for both start-ups, as the second most important knowledge asset. Finally, the third most important knowledge asset was "know-how in daily operations" for Upoc and "energy, passion and tension" for Atom Shockwave.

Experiential knowledge assets	Conceptual knowledge assets
Care, Love, Trust, Security **Energy, Passion, Tension (A.A)** Skills and Know-how of Individuals	**Product Concepts (A.A)** **Brand Equity (A.C)** Design
Routine knowledge assets	Systemic knowledge assets
Organizational Culture (A.C) **Know-how in daily operations (A.A)** Organizational Routines	**Documents, Specifications, Manuals (A.C)** Database

Figure 19. Shared Knowledge Assets, Investor View

From a knowledge creation point-of-view this would mean that Arts-Alliance's hands-on approach was gaining momentum, since the most important assets were experiential and thus crucial for new knowledge creation. Also, shared product concepts could have meant that summit meetings and other SU member events were working. Arts Alliance didn't mention best practices specifically within the three most important knowledge assets, but clearly, if given knowledge assets made a difference in SUs know-how in daily operations, it was worthwhile. This is not the whole picture though and more about this below.

For Allen & Co the most important shared knowledge asset was "brand equity" and also Arts Alliance sharing this asset is in line with some discussions of VCs reputation as a factor in building start-up success, particularly in the vein of

corporate venture capital (Maula 2001). Brand equity was proven and true, yet it didn't necessarily come from learning through collaboration, but from the overflowing reputation that VCs recognized competence facilitated. Other findings are mixed in the sense that Allen & Co worked closely with UPOC at the time and the second most important knowledge asset given was "Documents, Specifications and Manuals" in essence, basic explicit knowledge. Further, they really didn't have a very close relationship with Atom Shockwave during the interviews, but thought they had made a difference in SU's "Organizational Culture." These findings are, however, based on relatively limited information and its questionable if the SECI knowledge creation model can be operationalized like this.

Switching to the start-up view (Figure 20), Upoc did recognize "Care, love, trust and security," but changed it to "financial security," not quite the same thing, and didn't specify the source either. Atom Shockwave saw this as the second most important knowledge asset and pointed to Arts Alliance as the source. The feeling of security, that there was somebody on the company's side, came from active VC participation (hands-on approach). "Energy, passion and tension" was the most prevalent knowledge asset for Atom Shockwave, and the source was Arts Alliance. Upoc shortened this only to "tension" and again, didn't point to the source. Informant also felt that there has been some lack of trust, energy, passion and love.

Lack of trust is based on the nature of the game, a constant game of second-guessing. According to Arts Alliance there is no care, trust and security in the industry, but it is also that there is a difference between these and what informant called tough love, which is based on mutual respect. Somewhat regrettable was that many responsible persons had been replaced during the years. Trust and commitment need longer-term relationships to emerge and particularly Upoc had had many changes. This is the **third and final pattern**, the industry specific definition of trust. The third most important knowledge asset for Atom Shockwave was "brand equity" without naming the source.

Experiential Knowledge Assets	Conceptual Knowledge Assets
Care, Love, Trust, Security (A.S.<−A.A) Financial Security (U) Energy Passion and Tension (A.S.<−A.A) Tension (U) Individual Skills and Know-How (A.A)	Brand Equity (A.S)
Routine Knowledge Assets Organizational Culture (A.S)	Systemic Knowledge Assets

Figure 20. Shared Knowledge Assets, Start-up View

As the figure indicates, the list of knowledge assets from start-ups' point of view is fundamentally more limited, it is also notable that the respondents didn't see the connection between, say, systemic knowledge assets and best practices manual. Upoc considered best practices guidance as important on technology and human resources, but not on market related issues. Lively socialization took place particularly at Arts Alliance summits, with additional spaces reserved for one-on-one negotiations. My fifth theme was the way in which Arts Alliance was known for working as a "melting pot," delivering information about what was going on. Especially the CEO Thomas Hoegh did a good job combining explicit knowledge and bringing it to start-ups' attention. Start-ups, however, regarded the investor policy of not investing in the same type of companies as a hindrance for direct cooperation between start-ups.

Due to source ambiguity and criticism I couldn't find new knowledge creation that would have emerged from cooperation. However, it was clear that community features thinking became close to a capability that was cooperation induced. The most important revenue-increasing asset start-ups felt they had gained was the reputation aspect of it. Upoc sensed that association with a well-known investor has been very important for their business and while both investors applied, there was more weight on Allen & Co. Atom Shockwave

agreed; they also pointed out the reputation aspect of belonging to a renowned VC's investment portfolio and for them too, Allen & Co was more prominent in this respect[80].

Let us go deeper into the challenges of knowledge transfer by discussing it with the help of the figure 21, below.
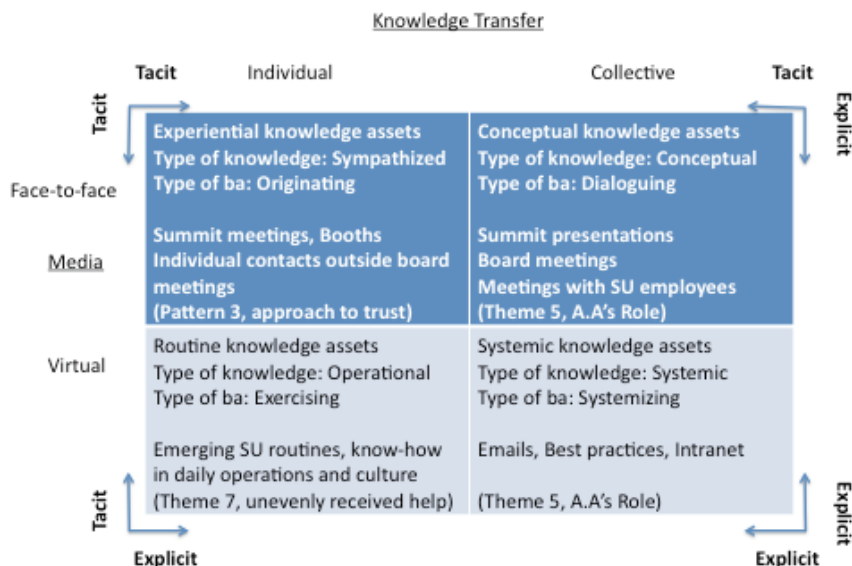
Figure 21. Knowledge Transfer

As was stated at section 3.5, "Knowledge Management and Knowledge Creation," emotional knowledge, such as care, love, trust and commitment, emerge from originating "Ba" and form the basis for knowledge conversion among individuals. From a new knowledge creation point of view, hands-on experience should start with catching the psycho-emotional reactions that are needed for new knowledge to emerge. Tools to achieve these were present in summits with meeting booths and interaction outside board meetings, but according to the data, the lack of trust (pattern 3) worked against originating "Ba" to emerge.

Dialoguing "Ba" took place in summit presentations, board meetings and separate meetings with start-up employees and Arts Alliance's role was appreciated (theme 5). This is where collective and face-to-face interactions

---

[80] Allen & Co is a respected, old investment bank.

enable individuals' mental models and skills to be shared, converted into common terms and articulated as concepts. Systemizing "Ba" with collective and virtual interactions worked with emails, the intranet and particularly the best practices. For understandable reasons intranet updating was considered a problem, but again, Arts Alliance's role was appreciated. Exercising "Ba" synthesizes the transcendence and reflection, and individuals embody explicit knowledge that is communicated via virtual media, such as the best practices. Here, however, the uneven way how SUs received and processed VCs' help was considered a challenge.

From investors perspective Allen & Co felt that cooperation builds on start-ups' idea of the market and the product, which VCs then help to bring on to a business stage. They saw that they had not gained any competitive advantage themselves from cooperation, since their core business was not in venture capitalism. Arts Alliance suggested that the reputation issue is a two-way street, investing in companies perceived as leaders makes you a leader as well. Arts Alliance's CEO had individually gained new management skills by following Atom Shockwave CEO's leadership role model, meaning that on an individual level relationship was working well between the CEOs.

In a nutshell the originating "Ba" was lacking and slowing the whole new knowledge spiral process down and energizing the process was complicated for the following reasons.

a) Strict business orientation (not learning orientation)
b) Strict and separate roles that an investor and a start-up had, and
c) An approach to inter-company trust that was perhaps slightly bent

According to my findings, participants saw cooperation as more about trying to work together and do something financially viable, rather than seeing it as an opening for learning from different markets, their functionality and upcoming trends, etc. Further, investors and start-ups had clear-cut individual roles and particularly start-ups felt where investors should stand. Finally, it became very obvious from the start that the kind of trust and commitment that repeatedly shows up in knowledge management literature as a prerequisite for new knowledge creation did not take place in the same manner in the studied private equity / start-up relationships.

6.5. Synthesis – Results Versus the Guiding Hypotheses

In this section I will compare the found patterns and themes to the guiding hypotheses and find answers why these hypotheses didn't fully match with the empirical findings. My general hypothesis was that inter-organizational cooperation and venture capitalist's "hands-on" approach should be beneficial for all participating organizations, making the guiding hypotheses the following:

1. Start-ups, while receiving private equity, are "open" enough and receptive to intangible resources, offered by the venture capitalists and participating portfolio of start-ups.
2. Close cooperation with start-ups will create a "Ba" like existence. Information exchange leads into the creation of new knowledge as tacit knowledge evolves in an enabling environment into new capability.
3. New knowledge, gained by venture capitalists' active participation, will steer start-up organizations and bring their new products and evolving business models closer to their new markets' expectations accordingly.
4. Because of the better-assessed market place and consequent modifications, start-ups' revenue potential is enhanced by the cooperation.

Eight themes emerged from the data, together with three patterns[81]. Themes were:

1. Start-ups' business ideas changed along the innovations processes. However, when VCs came along, the basic ideas were already shaped.
2. Start-ups (founders) belonged in most cases to VCs' existing network of connections.
3. Changing product offers brought changing target audiences, making both start-ups´ innovations to fit in the more common innovations class, innovations, without a clear identified market place.
4. VCs regarded cooperation to start earlier in the development process than start-ups did.
5. Arts-Alliance's role as an intermediary was regarded important.
6. Time that VCs and start-ups spent together was sporadic.

---

[81] Bearing in mind that when answers aligned explicitly by all informants I regard them as patterns. When the answers of, say, two start-ups and one VC aligned implicitly, I call them as themes.

7. Given help was received unevenly by start-ups.
8. Start-ups saw the wrong paths taken during cooperation as product level issues of how VCs approached their core product offering. VCs, on the other hand, saw them as wider, business level issues.

Patterns were:

1. Cooperation among start-ups had not really taken off.
2. The best thing that a VC can bring to a SU is high quality and leverageable contacts within start-up's business area.
3. There is an industry specific definition of trust, or the lack of trust.

Next, these findings are discussed in connection with the four guiding hypotheses.

1. Start-ups, while receiving private equity, are "open" enough and receptive to intangible resources, offered by the venture capitalists and participating portfolio of start-ups.

The business models of both case start-up companies were so new that the companies did not have any proven internal or external models of how to run their businesses. Their markets were not clearly identified or developed beforehand either, making the level of unknown sizeable enough, i.e., start-ups were not self-contained when it came to market information. Start-ups were active, trying to learn about their marketplace and willing to make changes in their product offering and target audience. However, being market oriented didn't necessarily transfer completely to being "inter-organizational cooperation oriented." All participants were open minded, but with some pre-assumptions of other participants' roles, ways to cooperate, and of the trustworthiness in the industry (pattern #3). Further, it felt almost that there was a mental threshold set on the leverageable contacts (pattern #3). If and when SUs provided leverageable contacts that was considered satisfactory and no further assets were specifically looked for.

2. Close cooperation with start-ups will create a "Ba" like existence. Information exchange leads into the creation of new knowledge as tacit knowledge evolves in an enabling environment into a new capability.

The most important reason for the fact that the postulated enabling environment or "Ba" didn't materialize was perhaps the particular way of looking at trust (pattern #3). Informants saw that the name of the game was that there was tough love, mutual respect, but no real trust. Further, cooperation was not regarded as a learning process; at least partly this had to do with the policy of not having other companies from the exact same business area to work with. Also, the start-up view of seeing their product closer to launch than what VCs saw at the time when investors joined in shows maybe a lack of preparedness to receive support (theme #4). It became very clear that investors couldn't have helped much with the actual innovation process, since cooperation was sporadic (theme #6), relying on board of management work, and investors joined at later stages (theme #1). Finally, the offered help was regarded helpful, but in an ambiguous way (theme #7).

3. New knowledge, gained by venture capitalists active participation, will steer start-up organizations and bring their new products and evolving business models closer to their new markets' expectations accordingly.

According to my findings this was not completely the case. Besides what was mentioned in the previous section about knowledge assets and achieved benefits, Arts Alliance's stance was acknowledged (theme #5). An interesting finding was that when asked about the wrong paths, start-ups both brought up product related issues (theme #8) that had to do with the wishes of investors regarding the offered services. It was almost as if investor views were considered a minor threat, and indicated that VCs were perhaps getting too involved. The second pattern, "the best thing that a VC can bring is high quality and leverageable contacts within start-ups business area," was regarded very important, but again, it was not about new knowledge gained through cooperation, even though contacts were a source of market information and valuable links.

4. Because of the better-assessed market place and consequent modifications, start-ups' revenue potential is enhanced by the cooperation.

Referring to the previous section, investors helped with cost and efficiency issues, but not by successfully facilitating learning according to my findings. Perceived core benefits were best practices, helping out running the business,

hiring people and letting start-ups better concentrate on building their businesses. Both companies were regarded helpful, particularly Arts Alliance (theme #5). Revenue potential was enhanced, but not because of new knowledge per se, but due to investor reputation, shared contacts and shared information.

7. Implications

In this last chapter I will first address the key theoretical propositions of the study, then discuss the managerial implications, and I will conclude with discussing the limitations of the study and suggestions for future research.

An introduction of the ideas of market identification model and market identification workshop will be made. Market identification workshop uses market identification framework and an inter-organizational coordination function via a new job description of a market intelligence officer. The basic idea will be discussed in the theoretical implications section, and a suggestion for practitioners on how to use the workshop is made in the managerial implications section.

7.1. Theoretical Implications

This dissertation was deliberately multi-theoretical, i.e., rich theory from several different schools of thought was sought to help in bringing depth into the analyses and following results. This way, the theoretical discussion was assumed not only to widen the private equity industry-specific perspective, but also to carry new motifs to the otherwise more generic guiding hypotheses. Following this quest, I will discuss market orientation at a radical innovation realm in this chapter.

Drawing together the discussions in sections 1.2 "Market Orientation in The Radical Product Realm," 3.3 "Market Orientation" and 3.4 "Relationship Management," one can look at new product development processes roles in a way that, in established markets, companies have the benefit to know more of the outside (marketplace), which allows them to concentrate on the inside (cost structures, etc.), i.e., the efficiency, while companies pursuing radical innovations to unknown marketplaces do not usually have this information. Therefore, the more radical a new product is, the more organizations should concentrate on the revenue generating factors, the ones that increase an organization's external operability, their effectiveness. Companies can try to overcome the disadvantage that comes from working in an un-established (emerging) marketplace by engaging in strengthening their market capabilities and these effectiveness-enhancing capabilities include market orientation.

Narver & Slater (1990) suggest that MO consist of three behavioral components:

- Customer orientation (CU)
- Competitor orientation (CP)
- And inter-functional coordination (IC)

Tyler and Gnyawali (2002) describe the role of inter-functional coordination as a structural aspect of the organization; it's an in-house, internal coordination activity, which facilitates communication across departments and is close to market orientation. In this dissertation I modified this concept to cover also the external element, the coordination over inter-organizational boundaries. If coordination is viewed this way, as a structural aspect of the VC / start-up cooperation, it could be named tentatively as inter-organizational coordination, or IOC function. According to Jaworski and Kohli (1993), there are alternative avenues in turbulent industries for gaining competitive advantage and therefore a limited interest in market orientation. I suggested that MO's significance does not diminish, but alters, as start-ups' own customer orientation and competitor orientation have lesser roles. An organization could perhaps reach part of the needed new knowledge from the inter-organizational coordination function.

In order to be effective and bring competence, the coordination and support that a VC provides to SUs have to be in line with an SU's innovation type and related needs for market intelligence, among other things. According to McDermott & O'Connor (2002), there are enhancing, destroying and stretching competencies. Stretching is one of the key elements of radical innovation processes and one that distinguishes them from more incremental efforts. Support that VCs provided to their portfolio start-ups in this study, however, was mainly aimed at enhancing processes, specifically by facilitating contacts within the industry the start-up was in, in essence, an activity theoretically more fit for incremental innovation.

My findings indicate that the definitions of dynamic capabilities and competences that originate from a resource-based view do not work very well in the context of inter-organizational cooperation and new marketplaces. As was mentioned in the theory section, Teece et al. (1997), Winter and Zollo (2002) and Möller and Svahn (2003) define dynamic capabilities as a learned

and stable pattern of collective activity through which the organization systematically generates and modifies its operating routines in pursuit of improved effectiveness. This definition specifically identifies operating routines, as opposed to the more generic competencies. To add value to the activities of a start-up in an inter-organizational context is problematic if based on operating routines. Unlike e.g. Möller and Svahn (2003), who discuss strategic nets at a wider and more abstract level, I look at the capability creation from an alliance point of view, and from this point of view it seems as if competence is hindered due to start-ups' inexperience, and the unproven business models can further diminish the possibility of bringing improved effectiveness and competitive advantage from operating routines. Dynamic capabilities have to come from elsewhere in this context.

Also the market orientation framework proved to be partly inadequate in examining the start-up companies pursuing radical product innovation, because it had lacking elements that need to be re-addressed. The traditional conceptualization of market orientation seems best suited for established marketplaces, where incremental new product development efforts form the general practice. Establishing a new marketplace consists of new market creation and new business development (NBD) efforts, as was suggested in section 3.2. "New Product and New Business Development." McDermott & O'Connor (2002) discuss new opportunity identification, but it can be argued that opportunity identification is something that comes before actual market orientation efforts. It was argued that in the era of ferment an "alternative MO" conceptualization is needed (section 3.3, figure 8). We need a framework, a toolkit, and a systemized approach for actions after opportunity identification, but before the traditional market research methods can be used to measure the reactions at new marketplace, where the product is going to compete (Figure 22). Let us give this marketing concept a tentative name, market identification.

Figure 22. Tentative Market Identification Framework Model

The vertical Axis depicts the innovation management project and the horizontal axis depicts the level of uncertainty. Starting from the far right, within established markets traditional new product development methods can be used effectively. These include a traditional marketing toolkit with market research methods that can bring new capabilities to the new product development project by making it more market oriented. At the far left, within radical innovation realm it has been suggested that new innovation projects should be open to the point that cooperation with customers, suppliers and other complementors could bring new knowledge of new tech trends and business models. Hence, openness could bring in new business opportunities by relying on the expertise of the surrounding network players and potentially filling some of the void that a lack of tools to research this marketplace brings.

The suggested market development toolkit is described in the middle of the figure 22. New market development (as an activity) has traditionally been seen as an effort of an incumbent to actually construct a completely new marketplace from ground up, but in my context (as a noun), it is a systemized tool to try to anticipate upcoming market scenarios. It's an attempt to use a systemized cooperation structure for the portfolio to proactively visualize and identify new upcoming market trends and demand structures that could bring

176

participating individual business development projects more on par with what lies ahead concerning evolving customer needs.

In sum, there is the element of cooperation and then there is the element of marketing tools. Starting with the tools, when the new product offering has been introduced to the new marketplace and customers have had time to gain experiences from using it, focus groups and surveys, etc., can be used to find and hear the voice of the customer. Market identification tools are different compared to the traditional marketing research tools. For anticipating the future voice of the customer on top of what, say, open innovations can offer, we are talking about big data, market trend analysis and wider tools that are tailored to fit into the marketing framework and borrowed from sociology, social psychology, anthropology, and so forth. A systematic way of researching the unknown unknowns in the marketplace is still in its infancy, and every new step forward should lower the "hit-and-miss" ratio that is traditionally high within radical innovation.

The element of cooperation could combine, put to work and even inspire the use of marketing tools that SUs may, or may not have used in the past at different stages of their innovation process. Thus, using the suggested market identification framework model as a backbone and putting the inter-organizational coordination function, or IOC function to work, let me suggest now a market identification workshop model (Figure 23), where dynamic capabilities could perhaps grow from the operating routines of cooperation instead of the collective activity within an individual organization, as literature on market orientation has traditionally suggested. The workshop model is organized according to principles of Nonaka & Takeuchi's (1995) SECI – model, and again, it will be discussed in this section as a theoretical phenomenon, and in the managerial implications section I will use the findings of this research to suggest an interaction model for the practitioners based on this workshop model.
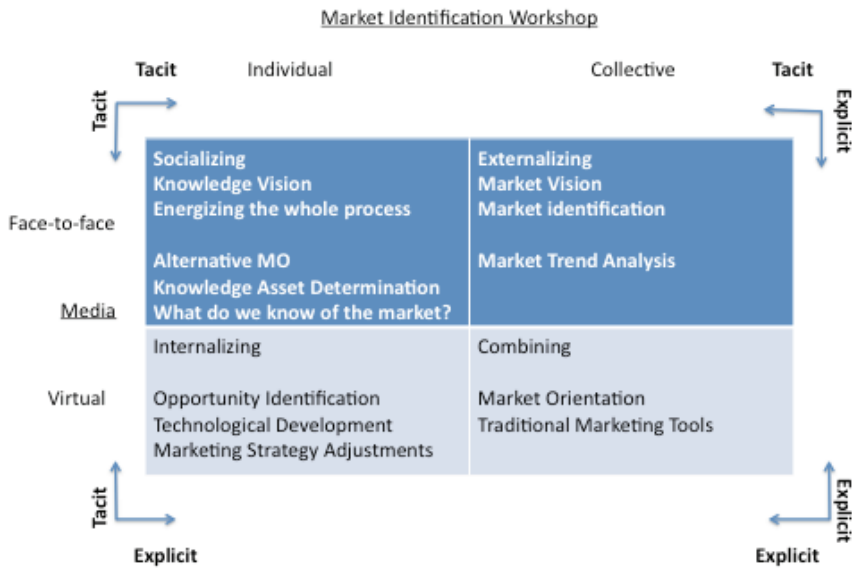
Figure 23. Market Identification Workshop

On top of the help in financing, contacts, reputation, strategy, and sometimes operations, a VC could try to increase the business opportunity of a start-up even further by using this workshop model. According to my findings, SUs saw a need to have strict and separate roles between them and VCs, and this hindered them from recognizing a clear need for VC help in product and market issues. However, constructive individual support in the shape of a vision of where markets are going could be a way to overcome this. Target markets are mostly different for every start-up but can still carry common denominators. A rising tide lifts all boats, and working down from megatrends to individual marketing plans should be worthwhile individually and collectively, since target segments and strategies change often as individual NBD projects go forward, and market intelligence is a weak link for SUs anyhow.

Looking at Figure 23 and starting from the upper left, socializing means that a think tank should be established to figure out what participants see their new markets to consist of and if their knowledge assets are adequate to keep building a product offering that will meet the expectations of the new marketplace. Also the idea of alternative marketing tools should be addressed here, i.e., what are the ways to research the marketplace when we don't know

178

what to research for, not forgetting however, a SUs' chronically limited means and potential lack of interest in studying their upcoming new markets in the first place. Socializing should reach a knowledge vision that is turned into an individual SU's market vision in the externalizing section of the SECI process.

In the externalizing phase, tools such as big data are processed collectively, face-to-face and analyzed, in order to identify the market trends and potential future scenarios that may have an effect on the future markets of the participants. This is the phase where the actual market identification will take place, and through its collective interaction, an individual market vision should materialize.

At the third phase participants combine this market vision as part of their marketing toolkit and as one of the cornerstones of their market orientation. Inter-organizational cooperation that supports this activity at this stage is collective but virtual, so no face-to-face interaction is needed to push for new knowledge creation.

Finally, at the last stage of the process a company internalizes what they have learned, and if they need to, they make changes to their marketing strategy, technological solutions, and contemplate new business opportunities that have potentially risen as an outcome of the market identification workshop. Support at this last stage is individual, and physical presence is not needed. Finally, as always with a SECI process, whenever a VC should question their portfolio's knowledge assets and individual SUs' marketing strategies, this process should start anew to bring bright ideas for participants' new business development.

7.2. Managerial Implications

In managerial implications I will first look into the factors that hindered participants in this study from cooperating and learning from each other. Then I will take a final look at the SECI process, now adding into the market identification workshop model, figure 23, the knowledge assets that VCs offered to SUs. Finally, using marketing tools and these assets, I will suggest a new cooperation structure, which could turn it more effective and potentially grant new knowledge transfer between the organizations.

Issues that made cooperation harder dealt with the abstract nature of radical innovation, the subsequent unknown path that had to be followed and communication problems based on the different backgrounds that VCs and SUs had. The earlier suggestion was that innovations tend to come not from articulated needs, but from insights into unarticulated needs. Those who can track upcoming trends and market dynamics before others do will supposedly be in a good position to gain commercial success. Entrepreneurs have a good idea why they are making the product, but they may sometimes be too close to see and anticipate any alternative markets and uses for their product offerings to realize where additional value could exist. This is where an active VC should be able to help, but there is a potential challenge, since many VCs want to nurture radical innovations because of the potential for outstanding financial gains, but still may end up treating them with means better suited to less radical, incremental innovations. Weight on factors like market and product features, while theoretically superior, are something that investors are not necessarily that capable to add value to.

Cooperation was also seen somewhat one sided and not without obstacles. One of the informants pointed out that a hands-on approach would work best when there are VC people with a background in entrepreneurship and not just finance, who had started and sold a successful company, had operational experience and could make recommendations on how to guide strategy. He continued by stating that sharing information is difficult when you are making up the market while also making up the product, and if a radical new product is defined too narrowly, what can happen is that the product is killed before it even comes out. "There should be a general definition of a radical product for discovering the market place, and after getting the product out, you can figure out who is using it. At the outset, what you need are a) a general idea, b) a target market, and c) a niche." Both start-ups' product propositions ended up largely different than their original ideas, so the b) and the c) in respondent's answers really didn't hold water until the investors stepped in, and even then they needed fine-tuning.

What can be done to change the one-sided business orientation, bring together the separate roles that VCs and SUs had, and build the inter-company trust that was found lacking in this research? As was suggested in the previous section, perhaps spearheading the cooperation towards new market intelligence could contribute, but to make this happen we would need a

knowledge vision to work on the assets that different companies have. VCs traditionally take strides towards choosing a capable management team for a SU. To operationalize this knowledge vision would have to reach beyond choosing the team to distinguishing if the organization is equipped with suitable competencies to master how to fulfill the needs that the evolving new marketplace requires. In private equity investing, the one with the knowledge vision should primarily be the VC, because this way it would end up helping the whole portfolio.

Let us go back to the knowledge assets that both VCs suggested they had given to the SUs. I am suggesting a tentative job description of a "Market Intelligence Officer (MI Officer)" to run a knowledge creation SECI –based market identification workshop (Figure 24) that combines traditional marketing tools with the market identification workshop model.
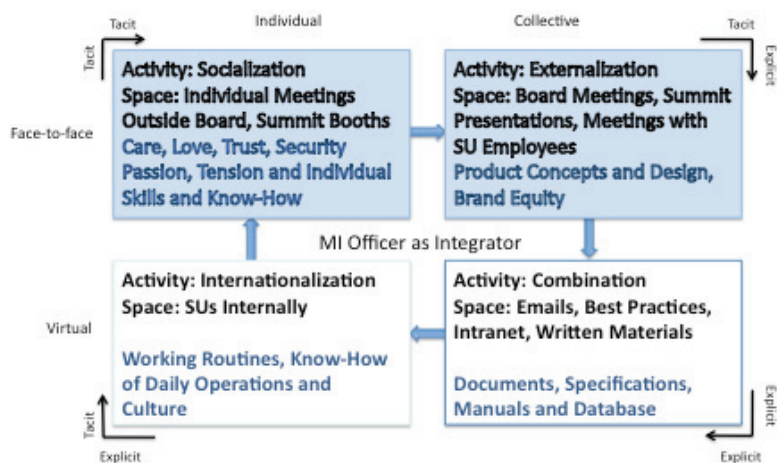
Figure 24. VC Knowledge Assets in Respective SECI Positions

Energizing the knowledge process in the upper left is the key; it starts the new knowledge process and works only in face-to-face interaction. This is the phase where the idea of knowledge vision is sold to participants and where the assets that participating SUs have are assessed during the repeating new knowledge process cycles. This is also where the ideas of alternative market orientation and accompanying tools are introduced. In the second phase, on the upper

right, the individually agreed knowledge vision is developed collectively into individual market visions. Product concepts and designs, and brand equities are refined based on what SUs know and know not to know. At the lower right, at the third phase, participating SUs individually combine their new market visions to what is going on inside the SU. Their marketing tools and overall market orientation are reassessed based on new knowledge that they have gained. Supporting this part can be done by sharing documents, specifications, manuals and databases and conveyed without physical presence at this stage. At the fourth, and final stage, participants internalize what they have learned to their working routines and therefore, their working culture and daily operations. This is how they can find new opportunities, use the new knowledge in technological development and adjust their marketing strategies accordingly. All these elements are needed to facilitate permanent results, and whenever there is a need to start the cycle again, it should be done, first with personal meetings, in the second phase in summits, board meetings, etc, and the process should be encouraging and supportive throughout the cycle. In reality, things are obviously not as straightforward, but are redundant and overlapping.

As VCs are not around all the time and their sporadic cooperation prevents them from having a more thorough understanding of start-ups situations, one option would be to have a knowledge officer, and more specifically the above mentioned market intelligence officer, who evaluates where every company is along the line to commercial success with their product, market intelligence and strategy. The officer could work independently as an integrator, apart from the VC employees, who still remain responsible for the well being of their investment. S/he could work closely with the whole portfolio and would be supervised by the VC pool. The process would start by constantly asking: what we know of the market, what knowledge assets do we possess, are we industry experts, and what are the alternative future scenarios? This should create lively conversations at various meetings and reveal how other participants see individual SUs' market visions. Considering that according to the findings of this study VC/SU cooperation is not providing an environment for learning and that market intelligence is a soft spot for all starting companies, it could prove to be worthwhile. This, of course, depends on the capability of the officer to make sure that whatever useful gets to be added to participating SUs individual toolkits. This could include new ways of seeing opportunities,

making technological fine-tunings, and improving existing marketing strategies of the company.

It could also help soften the investors' strong and often heard sales pitch that investor employees are very talented and therefore suitable for the job. It is understandable that VCs market themselves to their investors and potential start-ups as talent power houses, but when they steer start-ups with their financial might and ownership share, promotion of their own talent can feel unjustified. Credibility issues may rise, when this talent is perhaps accompanied with inexperience in practical skills of starting and running a company.

To help SUs in making their product launch and market penetration more effective is where it counts. In relationship management terms, VCs cover SUs resource-access function as well as market signaling function with their reputation. I have suggested a way, in which market-scouting capability can be leashed to a better use via investor led inter-organizational cooperation model.

7.3. Limitations and Future Suggestions

Finally, let us look what the future could bring. This study has just scratched the surface of the world of private equity funding and start-up companies. Richer empirical data is needed in the future, and outside of this study's scope was the type of tight industry-specific expertise that an angel investor possesses. It could have brought some issues typically more connected to incubator type investing. Consensus seemed to be that Angels often invest in a technology and the inventors first and then try to define a market for the innovation. With VCs it is more about investing in a business plan, which defines a market and a customer base right from the start, even though according to my findings it was a constantly evolving process of redefining your marketplace.

Future research should address a couple of issues in accordance with these findings. First is the right governance structure for stimulating radical innovation and the second is partner identification propensity. In this research it was a given that investors either participate through board of management work, or take other actions to cooperate with companies they are financially committed to. However, it was not questioned whether this is in fact the right

way to follow one's financial interests. The basic dilemma seems to be the balance in corporate governance. There is a need for freedom to foster radical innovation, but also the requirement for supervising and steering the fortune of one's financial investment (Stinger 2000).

Some VCs are good pickers and some are good growers. It seems that partner identification propensity and alliance competence deal with both of these areas, respectively. I repeated the already known fact that an investor's good reputation is an asset for the participating start-ups. The question is what are the sources for this reputation? Is part of this reputation due to the better-than-average partner identification propensity of the investors, just their ability to work with their investments better, or both? Start-ups' chances for good commercial performance can increase long before operations ever see their first ray of light in the form of participating VCs growing competence. This research has covered only a fraction of the wider research issue of investor competence. A future research topic could be to dig deeper into how cooperation with investors actually influences the business equation altogether, and what type of weight the investor cooperation element has on it.

Market orientation within radical innovation remains elusive from the practitioner's point of view. The proposed market identification workshop could perhaps help in building a more systematic way of reading, estimating and guiding the intuition of decision makers and providing them with the capability to evaluate the trends that affect their individual businesses. Where the markets are going and how they inevitably will change along the way makes or breaks a business. A VC stays with a company for several years. There is plenty of time to fine-tune, if and when a positive atmosphere, an enabling context, is taking place along with a systemized approach to cooperation. This research has dealt with hands-on, hands-off investing approaches, disregarding that there can be yet totally different approaches out there, and what the most efficient way of private equity investing is can still remain elusive. We still need to gain more knowledge.

I would have changed my research design if two things had materialized in the study, community features thinking turning up as an indisputable capability and SUs' knowledge assets chart becoming complete. A cooperation induced capability and a full-recorded SECI process would have caused a need to "reverse-engineer" this capability and try to find out how it came about. In this

case, a more thorough picture of the SECI process would have required a different study design involving more participation and observation during the field study process. This was, however, unattainable due to the busy schedules of companies involved but also unnecessary for the purposes of this research, since indisputable cooperation induced capabilities were not found.

A natural theoretical proceeding to this research would be to take the abductive research approach further, but in a more empirically driven manner. The strength of this dissertation was in examining the various schools of thought that were used to gain insight to market orientation in a radical innovation setting. This left, however, fewer resources for extending the empirical base of the study. A logical next step would be to look deeper into the researched phenomenon, but this time by the tools of practice-based research. A radical innovation process cannot be as straightforward as an incremental innovation process is, and I was able to pinpoint why cooperation was not optimal. It would be worthwhile to work towards solving these cooperation issues by regarding them as breakdowns of routines. Inconsistencies and breakdowns, derived from empirical observation, may help in developing a whole new theory of optimal ways of cooperation and could be a good counterforce for the theory-driven considerations that were fundamental for this work. Yet, the very first step should be to examine empirically, if the suggested market identification workshop model interaction really brings new knowledge and capabilities to participating organizations.

References

Abernathy, W.J., Utterback, J, "Patterns of Industrial Innovation," in readings in the Management of Innovation, M.L. Tushman and W.L. Moore, Harper Collins 1978.

Adner, R, "When are Technologies Disruptive? A Demand-Based View of the Emergence of Competition," Strategic Management Journal Vol. 23 Number 8, pages 667-688 (2002).

Aitsahlia, F, Johnson, E, "Is Concurrent Engineering Always a Sensible Proposition," IEEE Trans: Engineer Management 1995; 25: 166.

Al-Mubaraki, H.M., Busler, M, "The Road Map of International Business Incubation Performance," Journal of International Business and Cultural Studies." Feb2013, Vol. 7, p59-76.

Amit, R, Schoemaker, P.J, "Strategic Assets and Organizational Rent," Strategic Management Journal. 14(1), pages 33-46, 1993.

Amit, R, Zott, C, "Value Creation in E-Business," Strategic Management Journal 22; 493-520, 2001.

Anderson, P, Tushman M.L, "Technological Discontinuities and Dominant Designs: A Cyclical Model of Technological Change," Administrative Science Quarterly, Issue 4, Vol. 35 Dec. 1990, pages 604-634.

Andreu, R, Ciborra, C, "Core Capabilities and Information Technology: An Organizational Learning Approach," in Organizational Learning and Competitive Advantage," Moingeon & Edmondson (Eds.), Sage Publications Ltd, London 1998

Anand, J, Singh, H, "Asset Redeployment, Acquisitions, and Corporate Strategies in Declining Industries," Strategic Management Journal 18 (Summer Special Issue 1997), pages 99-118.

Aoki, M, "Information, Incentive, and Bargaining in the Japanese Economy," Cambridge University Press: Cambridge, 1988.

Aoki, M, "Toward an Economic Model of the Japanese Firm," Journal of Economic Literature, 28 (March), pages 1-27, 1990.

Argote, L, "Organizational Learning: Creating, Retaining and Transferring Knowledge," Kluwer Academic Press Publishers, Boston 1999.

Argyris, C, "Knowledge for Action," Jossey-Bass, San Francisco, California 1993.

Assael, Henry, "Marketing Management," Kent Publishing Company 1986.

Barney, J.B, "Firm Resources and Sustained Competitive Advantage," Journal of Management, 17(1), pages 99-120, 1991.

Barney, J.B, "Is the Resource-Based View a Useful Perspective for Strategic Management Research? Yes," Academy of Management Review 26(1) pages 41-56 2001.

Bartlett, C.A., Ghoshal, S, "Managing Across Borders," Boston, MA: Harvard Business School Press 1989.

Blackler, F, "Knowledge and the Theory of Organizations: Organizations as Activity Systems and the Reframing of Management," Journal of Management Studies 30:6, 1993, pages 863-884.

Bennett, R.C., Cooper, R.G., "Managing Our Way to Economic Decline," Harvard Business Review, July-August 1982.

Bettencourt, Lance A, "Customer Voluntary Performance: Customers as Partners in Service Delivery, "Journal of Retailing, Vol. 73, pages 383-406, 1997.

Biemans, W.G., "Managing Innovations Within Networks," Routledge, London 1992.

Blazevic, V, Lievens, A, "Managing Innovation Through Customer Coproduced Knowledge in Electronic Services: An Exploratory Study," Journal of the Academy of Marketing Science (2008) 36: 138-151.

Booz, Allen and Hamilton, Inc, "New Product Management for the 1980's," New York: Booz, Allen and Hamilton, Inc, 1982.

Brownlie, Douglas T, "The Strategic Management of Technology: A New Wave of Market-led Pragmatism or a Return to Product Orientation?" European Journal of Marketing, vol. 21, Number 9, 1987, pages 45-65.

Buber, R, Gadner, J, Richards, L (Eds.), "Applying Qualitative Methods to Marketing Management Research," Palgrave MacMillan 2004.

Burgelman, R, "A Process Model of Internal Corporate Venturing in the Diversified Major Firm," Administration Science Quarterly, 1983; 28: 223-244.

Calantone, R, Cooper, R, "New Product Scenarios: Prospects for Success," Journal of Marketing 45 (Spring) 1981, pages 48-60.

Capron, L, Hulland, J, "Redeployment of Brands, Sales Forces, and General Marketing Management Expertise following Horizontal Acquisitions: A Resource Based View," Journal of Marketing, Vol. 65, Issue 2 Apr.1999, pages 41-54.

Carley, K, Harrald, J, "Organizational Learning Under Fire," American Behavioral Scientists 40(3): 310-332, 1997.

Carter, R, Van Auken H, "Journal of Small Business Management," Jan 94, Vol. 32, Issue 1, p60-73.

Chandrashekaran, Mehta & Chandrashekaran, Grewal, "Market Motives, Distinctive Capabilities, and Domestic Inertia: A Hybrid Model of Innovation Generation," JMR, Journal of Marketing Research (Feb 1999), pages 95-112.

Chandy, R, Tellis, G, "Organizing for Radical Product Innovation: The Overlooked Role of Willingness to Cannibalize," Journal of Marketing Research, 34 (November 1998), pages 474-487.

Chandy, R, Tellis, G, "The Incumbent's Curse? Incumbency, Size, and Radical Product Innovation," Journal of Marketing, Vol. 64 (July 2000), pages 1-17.

Chatterjee, Sayan, "Types of Synergy and Economic Value: The Impact of Acquisitions on Merging and Rival Firms," Strategic Management Journal, 7 (2) 1986, pages 119-139.

Chemmanur, T, Krisnan, K, Nandy, D, "How Does Venture Capital Financing Improve Efficiency in Private Firms? A Look Beneath the Surface," Review of Financial Studies, Dec 2011, Vol. 24, Issue 12, p4037-4090.

Chesbrough, H, "Open Innovation, The New Imperative for Creating and Profiting from Technology," Harvard Business School Press: Boston, MA, 2003.

Chesbrough, H, Teece, D, "Organizing for Innovation: When is Virtual Virtuous?" Harvard Business Review 74(1) 1996, pages 65-73.

Christensen, C, "The Innovator's Dilemma. When New Technologies Cause Great Firms to Fail," Boston MA, Harvard Business School Press, 1997.

Christensen, C, Bower, J, "Customer Power, Strategic Investment, and the Failure of Leading Firms," Strategic Management Journal 17(3) 1996: 197-218.

Coase, R, "The Nature of the Firm," Economica, 4, pages 386-405, 1937.

Coffey, A, Atkinson, P, "Making Sense of Qualitative Data: Complementary Research Strategies," Thousand Oaks, California, Sage Publications, 1996.

Collis, D, "A Resource-Based Analysis of Global Competition: The Case of the Bearings Industry," Strategic Management Journal, 12: 49-68, 1991.

Collis, D, "Organizational Capability as a Source of Profit," in Organizational Learning and Competitive Advantage," Moingeon & Edmondson (Eds.), Sage Publications Ltd, London 1998.

Conway, H.A., McGuinness, N.W., "Idea Generation in Technology-Based Firms," Journal of Product Innovation Management 4: 276-291 1986.

Cooper, A.C., Gimeno-Gascon, F.J., Woo, C.Y., "Initial Human and Financial Capital as Predictors of New Venture Performance," Journal of Business Venturing, 9(5): 371-395 (1994).

Cooper, Robert G, "Product Leadership," Perseus Books 2000.

Cooper, R. G., "The Dimensions of Industrial New Product Success and Failure," Journal of Marketing, Vol. 43, No. 3 (Summer, 1979), pp. 93-103.

Cooper, R. G., "Selecting Winning New Products: Using the NewProd System," Journal of Product Innovation Management 2, pages 34-44, 1987.

Cooper, R.G., "Stage-Gate Systems: a New Tool for Managing New Products," Business Horizons (May-June) 1990: 44-54.

Cooper, R, Edgett, S, Kleinschmidt, E, "Optimizing the Stage-Gate Process: What Best-Practice Companies Do-I," Research & Technology Management, Vol. 45, Sept-Oct 2002, pages 21-27.

Cooper, R, Edgett, S, Kleinschmidt, E, "Optimizing the Stage-Gate Process: What Best-Practice Companies Do-II," Research & Technology Management, Vol. 45, Nov-Dec 2002, pages 43-49.

Cooper, R.G., Kleinschmidt, E.J., "New Products: The Key Factors in Success," Chicago: American Marketing Association 1990.

Cooper, R.G., Kleinschmidt, E.J., "New Product: What Separates Winners from Losers?" Journal of Product Innovation Management 4(4), 1987, pages 169-184.

Cooper, R.G., Kleinschmidt, E.J., "What Makes a New Product a Winner: Success Factors at the Project Level," R&D Management 17:175-189 (1987).

Crawford, C. Merle, "New Products Management," Boston: Irwin 1992.

Danneels, E, "Disruptive Technology Reconsidered: A Critique and Research Agenda," Journal of Product Innovation Management 2004; 21:246-258.

Day, G, "The Capabilities of Market Driven Organizations," Journal of Marketing 58(4), 1994, pages 37-52.

Day, G, "Advantageous Alliances," Journal of the Academy of Marketing Science 23 (4) 1995: 297-300.

Day, G, "Misconceptions about Market Orientation," Journal of Market-Focused Management 1999, 4(1): 5-16.

Denzin, N, Lincoln, Y, "The Handbook of Qualitative Research," Thousand Oaks, California 1994.

Deshpande, R, Farley, J.U., "Corporate Culture and Market Orientation: Comparing Indian and Japanese Firms," Journal of International Marketing 7(4), 111-127.

Dewar, R, Dutton, J, "The Adoption of Radical and Incremental Innovations: An Empirical Analysis," The Journal of Management Science 1986; 32: 1422-33.

Dierickx, I, Cool, K, "Asset Stock Accumulation and Sustainability of Competitive Advantage," Management Science, 35 (12): 1989, pages 1504-1511.

Dosi, G, Teece, D, Winter, S, "Toward a Theory of Corporate Coherence: Preliminary Remarks," Mimeo 1990.

Dosi, G, Teece, D, Chytry, J, "Technology, Organization, and Competitiveness, Perspectives on Industrial and Corporate Change," Oxford University Press, New York 1998.

Doyle, P, "Marketing in the New Millennium," European Journal of Marketing, Vol. 29 No 12, 1995, Pages 23-41.

Doz, Y, Hamel, G, "Alliance Advantage," HBS Press, Boston 1998.

Dutta S, Narasimhan, O, Rajiv, S, "Conceptualizing and Measuring Capabilities: Methodology and Empirical Application," Strategic Management Journal, 26, 277-285 (2005).

Dvir, D, Shenhar, A, "Success Factors of High-Tech SBUs: Towards a Conceptual Model Based on the Israeli Electronics and Computers Industry," Journal of Product Innovation Management 7:288-296 (1990).

Dwyer, F, Schurr, P, Oh, S, "Developing Buyer-Seller Relationships," Journal of Marketing, vol. 51, (April 1987), pages 11-27.

Ehrnberg, E, "On the Definition and Measurement of Technological Discontinuities," Technovation 1995; 15: 437-52.

Eisenhardt, K.M., "Building Theory From Case Study Research," The Academic Management Journal 1989; 14: 532-550.

Ettlie, J, Bridges, W, O'Keefe, R, "Organization Strategy and Structural Differences for Radical Versus Incremental Innovation," Journal of Management Science 1984; 30:682-95.

Feldman, L, Page, A, "Principles vs. Practice in New Product Planning," Journal of Product Innovation Management 1:43-55 1984.

Ford, G, Smith, D, Swasy, J, "Consumer Skepticism of Advertising Claims: Testing hypotheses from Economics of Information," Journal of Consumer Research, 16 (March) 1990, pages 433-441.

Fransman, M, "Information, Knowledge, Vision and Theories of the Firm," in Technology, Organization and Competitiveness, Dosi, Teece & Chytry (Eds.), Oxford University Press 1998.

Ganesan, S, "Determinant of Long-Term Orientation in Buyer-Seller Relationships," Journal of Marketing 58 (April) 1994: 1-19.

Gatignon, H, Xuereb, J, "Strategic Orientation and Firm and New Product Performance," Journal of Marketing Research, 19, 1997, pages 77-90.

Gavetti, G., Levinthal, D.E., "Looking Forward and Looking Backward: Cognitive and Experiential Search," Administrative Science Quarterly 45 (March 2000): 113-137.

Glaser, B.G., Strauss, A.L, "The Discovery of Grounded Theory," Aldine New York 1967.

Gonzalez-Benito, O, Gonzalez-Benito J, "Cultural vs. Operational Market Orientation and Objective vs. Subjective Performance: Perspective of Production and Operations," Industrial Marketing Management 34 (2005) 797-829.

Grant, R.M., "Resource-Based Theory of Competitive Advantage," California Management Review, Vol. 33, No 3 (1990), pages 114-135.

Granovetter, M.S., "Economic Action and Social Structure: The Problem of Embeddedness," American Journal of Sociology, 51, pages 480-510 (1985).

Green S, Gavin M, Aiman-Smith, L, "Assessing a Multidimensional Measure of Radical Technological Innovation," IEEE Trans Engineer Management 1995: 42: 203-14.

Gruber, T, "A Translation Approach to Portable Ontologies," Journal of Knowledge Acquisition 5(2): 199-220, 1993.

Gupta, U (Editor), "Done Deals," Harvard Business School Press, Boston, Massachusetts 2000.

Hansen, M, Chesbrough, H, Nohria, N, Sull, D, "Networked Incubators: Hothouses of the New Economy," Harvard Business Review, Boston (Sept/Oct 2000), pages 74-84.

Hagel, J, Singer, M, "Unbundling the corporation," Harvard Business Review. March-April 1999, pages 134-143.

Hamilton, G, Feenstra, R, "Varieties of Hierarchies and Markets: An Introduction," in Technology, Organization and Competitiveness, Dosi, Teece & Chytry (Eds.), Oxford University Press 1998.

Hancock, D.R., Algozzine, B, "Doing Case Study Research: A Practical Guide for Beginning Researchers," Teachers College, Columbia University, Second Edition 2011.

Havila, Virpi, "International Business-Relationship Triads," Doctoral Thesis #64, Department of Business Studies, Uppsala University 1996.

Henard, D, Szymanski, D, "Why Some New Products Are More Successful Than Others," Journal of Marketing Research, Vol. XXXVIII (August 2001), pages 362-375.

Helfat, C, Raubitschek, R," Product Sequencing: Co-Evolution of Knowledge, Capabilities and Products," U.S Department of Justice, Washington, 1999.

von Hippel, E, "Successful Industrial Products from Customer ideas." Journal of Marketing 42, pages 39-49, 1978.

von Hippel, E, Thomke, S and Sonnack, M "Creating Breakthroughs at 3M," Harvard Business Review 77, No.5 September-October(1999), p. 47-57.

Hofer, C.W., Schendel, D., "Strategy Formulation: Analytical Concepts," St Paul, Minnesota, West Publishing Company, 1978.

Howells, J, "Tacit Knowledge, Innovation and Technology Transfer," Technology Analysis & Strategic Management 8:2, 1996, pages 91-106.

Hunt, S, "Competing Through Relationships: Grounding Relationship Marketing in Resource Advantage Theory," Journal of Marketing Management 13, 1997: 1-15.

Hunt, S, Morgan, R, "The Comparative Advantage Theory of Competition," Journal of Marketing 59 (April): 1-15, 1995.

Jaworski, B, Kohli, A, "Market Orientation: Antecedents and Consequences," Journal of Marketing 57 1993, pages 53-70.

Johnson, P, Duberley, J, "Understanding Management Research," Sage publications Ltd, London 2000.

Knight, R.M., "Product Innovation by Smaller, High-Technology Firms in Canada," Journal of Product Innovation Management 3:195-203, 1986.

Kogut, B, Urso, P, Walker, G, "Emergent Properties of New Financial Market: American Venture Capital Syndication, 1960-2005," Management Science Vol. 53, No. 7, July 2007, pages 1181-1198.

Kogut, B, Zander, U, "Knowledge of the Firm, Combinative Capabilities, and the Replication of Technology," Organization Science 3:3, 1992, pages 383-397.

Kohli, A, Jaworski, B, "Market Orientation: The Construct, Research Propositions, and Managerial Implications," Journal of Marketing, 54 April 1990, pages 1-18

Kotler, Philip, "Marketing Management: Analysis, Planning, Implementation and Control," Prentice-Hall 1968.

von Krogh, G, Ichijo, K, Nonaka, I, "Enabling Knowledge Creation," Oxford University Press 2000.

von Krogh, G, Roos J, "Imitation of Knowledge: A Sociology of Knowledge Perspective," in: Managing Knowledge. Perspectives on Cooperation and Competition, von Krogh & Roos (Eds.), Sage Publications 1996.

Lambe, C.J., Spekman, R, Hunt, S, "Alliance Competence, Resources, and Alliance Success: Conceptualization, Measurement, and Initial Test," Journal of the Academy of Marketing Science. Vol. 30, No. 2, 2002, page 141-158.

Leifer, R, McDermott, C, O'Conner, G, Peters, L, Rice, M, Veryzer R, "Radical Innovation: How Mature Companies Can Outsmart Rivals," Harvard Business School Press: Cambridge Massachusetts 2000.

Lincoln, Y. S., & Guba, E. G., "Naturalistic inquiry," Beverly Hills, CA: Sage, 1985.

Lindblom, A, Olkkonen, R, Mitronen L, Kajalo, S, "Market-Sensing Capability and Business Performance of Retail Entrepreneurs," Contemporary Management Research, pages 219-236, Vol. 4, No. 3, September 2008.

Lindman, M, "Managing Industrial New Products in the Long Run, A Resource-Based View on New Product Development and Performance," Acta Wasaensia, No. 59, Vaasa 1997.

Loch, C, Solt, M, Bailey, E, "Diagnosing Unforeseeable Uncertainty in a New Venture," The Journal of Product Innovation Management, 2008; 25:28-46.

Luecke, Richard, Katz, Ralph, "Managing Creativity and Innovation," Boston, MA: Harvard Business School Press 2003.

Maidique, M.A., Zirger, B.J., "A Study of Success and Failure in Product Innovation: the Case of the U.S Electronics Industry," IEEE Transactions on Engineering Management 31:192-203 1984.

Markman, S, "Moving Technologies from Lab to Market," Research and Technology Management, Vol. 45, (6), Nov-Dec 2002.

Marshall, C, Rossman, G, "Designing Qualitative Research," 3rd Edition, Sage Publications, Thousand Oaks 1999.

Matikainen, E, "Efficient Governance of Interorganizational Business Relationships," Helsinki School of Economics and Business Administration A-141, 1998.

Matusik, S, Fitza, M, "Diversification in the Venture Capital Industry: Leveraging Knowledge Under Uncertainty," Strategic Management Journal, 33: 407-427 (2012).

Maula, M, "Corporate Venture Capital and the Value-Added for Technology-Based New Firms," Helsinki University of Technology Institute of Strategy and International business, Doctoral Dissertations 2001/1, Espoo 2001.

McCutcheon, D, Meredith, J, "Conducting Case Study Research in Operations Management," Journal of Operations Management 1993; 11: 239-256.

McDermott, C, Handfield, R, "Concurrent Development and Strategic Outsourcing: Do the Rules Change in Breakthrough Innovation?" The Journal of High Technology Management Research 2000; 11: 35-57.

McDermott, C, O'Connor, G, "Managing Radical Innovation: An Overview of Emergent Strategy Issues," The Journal of Product Innovation Management, 19 (2002), pages 424-438.

Meyer, M.H., Roberts, E.B., "New Product Strategies in Small Technology-Based Firms: A Pilot Study," Management Science 32:806-821, 1986.

Miles, M, Huberman, A.M., "Qualitative Data Analysis," Sage 1994.

Miles, R, Snow, C, "Organization Strategy, Structure and Process," McGraw-Hill, New York 1978.

Mitronen, L, Möller, K, "Management of Hybrid Organizations: A Case Study in Retailing," Industrial Marketing Management 32 (2003), pages 419-429.

Mohr, J, Sengupta, S, Slater, S, "Marketing of High-Technology Products and Innovations," Second Edition, Pearson Prentice Hall 2005.

Moingeon, B, Edmondson, A, "Organizational Learning and Competitive Advantage," Sage Publications Ltd, London 1998.

Montoya-Weiss, M, Calantone, R, "Determinants of New Product Performance: A Review and Meta-Analysis," Journal of Product Innovation Management, 11 (11), 1994, pages 397-417.

Moore, G, "Inside the Tornado," HarperCollins Publishers, New York 1999.

Moore, W, "New Product Development Practices of Industrial Marketers," Journal of Product Innovation Management 4 (1) March 1987, pages 6-20.

More, R, "Timing of Market Research in New Industrial Product Situations," Journal of Marketing 48:84-94, 1984.

Morgan, R, Hunt, S, "The Commitment-Trust Theory of Relationship Marketing," Journal of Marketing 58 (July) 1994: 20-38.

Myers, S, Marquis, D, "Successful Industrial Innovations," National Science Foundation, Tech Rep. 69(17), 1969.

Möller, K, Törrönen, P, "Business Suppliers' Value Creation Potential A Capability-Based Analysis," Industrial Marketing Management 32 (2003) pages 109-118.

Möller, K, Svahn, S, "Managing Strategic Nets, A Capability Perpective," Marketing Theory, Sage Publications, Volume 3(2) 2003, pages 209-234.

Nanda, A, "Resources, Capabilities and Competencies," in Organizational Learning and Competitive Advantage, Mongeon, B, and Edmondson, A (Eds.), Sage London 1998.

Narver, J, Slater, S, "The Effect of a Market Orientation on Business Profitability," Journal of Marketing, 54 (4) 1990, pages 20-35.

Narver, J, Slater, S, MacLachlan, D, "Responsive and Proactive Market Orientation and New Product Success," Journal of Product Innovation Management, 21, 2004, pages 334-347.

Nelson, P, "Advertising as Information," Journal of Political Economy, 83 (July/August) 1974, pages 729-754.

Nelson, R, Winter, S, "An Evolutionary Theory of Economic Change," Cambridge: Belknap 1982.

Nonaka, I, "A Dynamic Theory of Organizational Knowledge Creation," Organizational Science 5:1, 1994, pages 14-37.

Nonaka, I, Takeuchi, H, "The Knowledge Creating Company," Oxford 1995.

Nonaka, I, Toyama, R, Konno, N, "Seci, Ba and Leadership: A Unified Model of Dynamic Knowledge Creation," at Managing Industrial Knowledge, Nonaka & Teece (Eds.), Sage Publications London 2001.

Nyström, Harry, "Company Strategies for Research and Development," Rapport från instutionen för ekonomi och statistic, Nr. 107, Lantbrukhögskolan, Uppsala 1977.

Nyström, Harry, "Product Development Strategy: An Integration of Technology and Marketing," The Journal of Product Innovation Management; New York; Mar 1985, pages 25-34.

Nyström, Harry, "Technological and Market Innovation: Strategies for Product and Company Development," John Wiley & Sons, England 1990.

Nyström, H, Liljendahl, S, "From Low Tech to High Tech – Technological and Marketing Strategies for Developing Radically New Products and Markets," XI ISPIM International Conference Paper San Sebastian, Spain October 1-3 1997.

O'Connor, G, Hendricks, R, Rice, M, "Assessing Transition Readiness for Radical Innovation," Research and Technology Management Vol. 45, Nov-Dec 2002, pages 50-56.

O'Connor, G, Leifer, R, Paulson, A, Peters, L, "Grabbing Lightning, Building Capability for Breakthrough Innovation," John Wiley & Sons 2008.

Pavia, T, "Product Growth Strategies in Young High-Technology Firms," Journal of Product Innovation Management 7, pages 297-309, 1990.

Pavia, T, "The Early Stages of New Product Development in Entrepreneurial High-Tech Firms," Journal of Product Innovation Management 8, pages 18-31, 1991.

Penrose, E, "The Theory of the Growth of the Firm," Oxford: Basil Blackwell, 1966.

Perry, C, "Processes of a Case Study Methodology for Postgraduate Research in Marketing," European Journal of Marketing, vol. 32, nos 9-10, pages 785-802, 1998.

Perry, C, "Case Research in Marketing," The Marketing Review, vol. 1, 2001.

Perry, C, "Realism Also Rules OK: Scientific Paradigms and Case Research in Marketing," at Applying Qualitative Methods to Marketing Management Research, Buber, R, Gadner, J and Richards, L (Eds.), Palgrave Macmillan, 2004.

Pfeffer, J, Salancik, G.R., "The External Control of Organizations. A Resource Dependence Perspective," New York: Harper & Row Publisher; 1978.

Phillips, L, "Assessing Measurement Error in Key Informant Reports: A Methodological Note on Organizational Analysis in Marketing," Journal of Marketing Research 18 (November) 1981: 395-415.

Polanyi, Michael, "The Tacit Dimension," Garden City, NY: Doubleday 1966.

Porter, Michael E., "Competitive Strategy," New York: Free Press 1980.

Porter, Michael E., "Competitive Advantage," New York: Free Press 1985.

Prahalad, C, Hamel, G, "The Core Competence of the Corporation," Harvard Business Review (May-June) 1990: 79-91.

Priem, R.L., Butler, J.E., "Is the Resource-Based "View" a Useful Perspective for Strategic Management Research?" Academy of Management Review 26 (1) pages 22-40 2001.

Riedel, J, Pawar, C, "The Strategic Choice of Simultaneous Versus Sequential Engineering for the Introduction of New Products," International Journal of Technology Management 1994; 6: 321-334.

Roberts, E.B., "Evolving Toward Product and Market-Orientation: The Early Years of Technology-Based Firms," Journal of Product Innovation Management 7, pages 274-287 1990.

Robinson, W, Chiang, J, "Product Development Strategies for Established Market Pioneers, Early Followers, and Late Entrants," Strategic Management Journal, 23 (2002): 855-866.

Rogers, E, "Diffusion of Innovations," Free Press 1995.

Rosenbröijer, C-J, "Capability Development in Business Networks," Dissertation at the Swedish School of Economics and Business Administration 1998.

Rothwell, R, "Factors for Success in Industrial Innovations," Project SAPPHO-A Comparative Study of Success and Failure in Industrial Innovations, Brighton, UK: SPRU 1972.

Rothwell, R, Freeman, C, Horsley, A, Jervis, V.T.P., Robertson, A.B., Townsend, J, "SAPPHO updated – project SAPPHO phase II," Research policy vol. 3, 1974, pages 258-291.

Rugman, A.M., Verbeke, A, "Edith Penrose's Contribution to the Resource-Based View of Strategic Management," Strategic Management Journal Vol. 23 Number 8, pages 769-780 (2002).

Sanchez, A.M., Elola, L.M., "Product Innovation Management in Spain," Journal of Product Innovation Management 8:49-56, 1991.

Sanchez, R, Aime, H, Howard, T, "Dynamics of Competence-Based Competition," Elsevier, New York 1996.

Santos, F, Eisenhardt, K.M., "Organizational Boundaries and Theories of Organization," Organization Science, 16, 5, pages 491-508 (2005).

Schroeder, R.G., Van De Ven, A.H., Scudder, G, Polley, D, "The Development of Innovation Ideas," Research on the Management of Innovations: the Minnesota Studies, A.H. Van De Ven, H.L. Angle and M.S. Poole, University Oxford Press, 2000.

Schumpeter, J.A., "The Theory of Economic Development: an Inquiry into Profits, Capital Credit, Interest and the Business Cycle," Harvard University Press, Cambridge Massachusetts, 1934.

Shaw, N, Peel, A, Burgess, T, "Innovation Stickiness: Investigating a Complex Supply Network," Abstract no: 002-0179 at Second World Conference on POM and 15th Annual POM Conference, Cancun, Mexico, April 30 – May 3, 2004.

Solomon, D, "Developing Breakthrough Innovations," a technology expert's view at Mohr, J, Sengupta, S, Slater, S, "Marketing of High-Technology Products and Innovations, Second Edition, Pearson Prentice Hall, 2005.

Sperling, G, "Product Operation and Market Strategies of Technology-Intensive Born Globals, The Case of Israeli Telecommunication Born Globals," Helsinki School of Economics A-255, 2005.

Srivastava, Rajendra K, Shervani, Tasaddug A, Fahey, Liam, "Market-Based Assets and Shareholder Value: A Framework for Analysis," Journal of Marketing, 62 (January 1998), pages 2-18.

Stake, R, "The Art of Case Study Research," Sage Publications, Inc, 1995.

Stuart, T, Hoang, H, Hybels, R, "Inter-organizational Endorsements and the Performance of Entrepreneurial Ventures," Administrative Science Quarterly 44: 315-349, 1999.

Stein, T, "Keiretsu Comedown," Venture Capital Journal, April Issue 4, pages 32-38. 2002.

Stinger, R, "How to Manage Radical Innovation," California Management Review, Vol. 42 No 4, summer 2000.

Takeuchi, H, "Towards a Universal Management (of the) Concept of Knowledge", in Managing Industrial Knowledge, Creation, Transfer and Utilization, Nonaka, I, Teece, D (Eds.), Sage Publications, London, 2001.

Teece, D, "Towards an Economic Theory of the Multiproduct Firm," Journal of Economic Behavior and Organization, 3 (1), pages 39-63, 1982.

Teece, D, Pisano, G, Shuen, A, "Firm Capabilities, Resources and the Concept of Strategy," CCC working paper No. 90-8, 1990.

Teece, D, Pisano, G, Shuen, A, "Dynamic Capabilities and Strategic Management," Strategic Management Journal 18, No. 7, pages 509-533, 1997.

Teece, D, "Strategies for Managing Knowledge Assets: the Role of Firm Structure and Industrial Context," in Managing Industrial Knowledge, Creation, Transter and Utilization, Nonaka, I, Teece, D (Eds.), Sage Publications, London 2001.

Teece, D, "Explicating Dynamic Capabilities: The Nature and Microfoundations of (Sustainable) Enterprise Performance," Strategic Management Journal, 28: 1319-1350, John Wiley & Sons 2007.

Thomas, A, Ramaswamy, K, "Matching Managers to Strategy: Further Tests of the Miles and Snow Typology," British Journal of Management, Vol. 7, 247-261 (1996).

Troy, L, Szymanski, D, Varadarajan, P, "Generating New Product Ideas: An Initial Investigation of the Role of Market Information and Organizational Characteristics," Journal of the Academy of Marketing Science, vol. 29, No.1, pages 89-101, 2001.

Tushman, M, O'Reilly, C, "Winning Through Innovation, A Practical Guide to Leading Organizational Change and Renewal," Harvard Business School Press 1997.

Tyebjee, T, Bruno, A, "A Model of Venture Capitalist Investment Activity," Management Science 30, p35-50, 1984.

Tyler, B, Gnyawali, D, "Mapping Managers Market Orientations Regarding New Product Success," Journal of Product Innovation Management," 19 (2002), pages 259-276.

Urban & Hauser, "Design and Marketing of New Products," Prentice Hall 1993.

Utterback, J.M., "Innovation in Industry and the Diffusion of Technology," Science, Vol. 183, February 15, pages 620-626, 1974.

Van De Ven, A.H., "Designing New Business Start-Ups: Entrepreneurial Organization, and Ecological Considerations," Journal of Management 10(1): 87-107, 1984.

Van De Ven, A.H., "Central Problems in the Management of Innovation," Management Science 32 (May) 1986, pages 590-607.

Varadarajan, R.P., Cunningham, M.H., "Strategic Alliances: A Synthesis of Conceptual Foundations," Journal of the Academy of Marketing Sciences 23 (4): 297-300 (1995).

Veryzer, R, "Discontinuous Innovation and the New Product Development Process," Journal of Product Innovation Management, 15 (July) 1998: 4: 304-321.

Wang, H, Wuebker, R, Han, S, Ensley, M, "Strategic Alliances by Venture Backed Firms: An Empirical Examination," Small Business Economics. Feb2012, Vol. 38, issue 2, p179-196.

Wainer, H, & Braun, H.I., "Test Validity," Hilldale, NJ: Lawrence Earlbaum Associates, 1988.

Weber, M, "Economy and Society," (1921-22) translated and edited by G. Roth and C. Wittich, University of California Press, Berkeley California, 1978.

Wernerfelt, B, "A Resource-Based View of the Firm," Strategic Management Journal 18 (7), pages 171-180, 1984.

Williamson, O.E., "Markets and Hierarchies: Analysis and Antitrust Implications," Free Press, New York, 1975.

Workman, John P, "Marketing's Limited Role in New Product Development in One Computer Systems Firm," Journal of Marketing Research, vol. 30 Issue 4, pages 405-422 (Nov) 1993.

Yin, R, "Case Study Research, Design and Methods," 2nd and 4th editions, Sage 1994, 2009.

Yin, R, "Applications of Case Study Research," 3rd edition, Sage Publications 2012.

Yli-Renko, H, "Dependence, Social Capital, and Learning in Key Customer Relationships: Effects on the Performance of Technology-Based New Firms," Acta Polytechnica Scandinavica, Espoo 1999.

Zhang, Yanli, "Inter-firm Networks and Innovation: The Difference Between the Horizontal and the Vertical Type," Academy of Management Annual Meeting Proceedings, 2007, p1-6.

Appendices

Interviewee Name	Company	Dates of Interviews
Balu, Rekha	Fast Company Magazine (Freelance)	06/13/02 (Telephone)
Eun, David	Formerly Arts Alliance/ Aol Time-Warner	10/10/01
Hackett, Tori	Arts Alliance	05/02/02
Hoegh, Thomas	Arts Alliance	02/02/02 (Telephone), 04/10/02, 03/12/03
Holter, Martine	Arts Alliance	04/10/02, 06/25/02 (Telephone)
Jacobovits, Natascha	Arts Alliance	04/10/02
Kanninen, Esa	Sonera Corp.	02/21/01, 07/01/01, 08/07/01
Kraskin, Mitchell	Compliance Tools, Inc	07/01/02
Lazar, Andreas	Allen & Co	09/22/03
Lenzi, Christopher	Arts Alliance	11/14/02
Levine, Alex	Upoc	11/12/02
Rummukainen, Reijo	Sonera Corp.	08/22/00
Salmi, Mika	Atom Shockwave	10/02/02, 11/06/02 (Telephone)
Valkin, Adam	Arts Alliance	04/10/02

Open Ended Interview Questions for Start-Ups

1. Purpose of the Study and This Paper

Purpose of the dissertation is to understand more about inter-organizational cooperation taking place during, and because of, V.C financing. This paper goes through questions that will be discussed with chosen start-ups' representatives. Questions are open ended, meaning that they should lead conversation loosely while all individual comments, opinions, and views are very welcome during the tenure of the interview.

Companies that are studied are Atom Shockwave, Upoc, Arts Alliance and Allen & Co. Intension is to shed some light to how deeply inter-organizational interaction can affect a start-up, while it is developing its products and services. Besides these questions, it would be extremely interesting to hear more about past cooperation as it took place chronologically. First thing that should be agreed upon, is an individual project that will work as a focus for this study.

Both Arts Alliance and Allen & Co are referred in the text as venture capitalists. To be precise, Allen & Co is an investment bank with a V.C arm.

2. Questions

1. Individual Project

1) Choose one business/ product development project that has been executed with above-mentioned financiers' cooperation. Questions that follow are focused on this particular project.

2. Market Orientation

2) Origins of your business mission, How did the elements of your mission, namely what to produce, how to produce and to whom to produce take steam. Was there a defined need that the new business idea was planned to fulfill?

3) How has understanding of future customers' preferences developed along the development process and at what stages of the development process (depicted below) has the market been researched (if it has been researched).

> Opportunity Identification
>
> Design
>
> Testing (advertising and product testing, pretest market and pre-launch forecasting, test marketing)
>
> Introduction

Lifecycle management

4) Describe changes that have occurred in your product development process. Has information that you have gained from chosen organizations made you to alter your product concepts along the way, if so, how. Have there been clear mistakes and wrong paths that had to be returned from?

5) How new or radical is your new product/ service compared to other products in the marketplace? Check the one that applies.

New to both the company and the market

New to the company but known to the market

Repositioning of existing products that were new to the market but not to the company

In intermediate position

Additions to an existing product line

Revisions or improvements of existing products

New products that provide similar performance at lower cost

6) What are/ were the main external information sources in product development?

3. Inter-organizational Cooperation

7) How did V.C cooperation start and in what phase of the new product development?

Opportunity Identification

Design

Testing (advertising and product testing, pretest market and pre-launch forecasting, test marketing)

Introduction

Lifecycle management

8) What has VCs roles been, other than financing?

9) In broad terms, what kind of information exchange/ cooperation has been taking place between chosen organizations?

10) Is there active cooperation that takes place with companies other than studied here and to what extent?

11) What has Arts Alliance's and Allen & Co's role been in the following aspects (please answer one company at the time);

11.1. Level of involvement,
11.2. Type of involvement,

     11.3.   Way in which this involvement is received in your organization,

     11.4.   Way how received resources (knowledge, help, etc.) are processed by your   organization?

12) Has there been direct cooperation between Atom Shockwave and Upoc, if so, what kind?

4. Knowledge Creation

13) Did other organizations influence you to find solutions that couldn't have been found otherwise?

14) Which of these knowledge types (if any) has been transferred to your organization, because of the cooperation between chosen companies (check 3 most important, 1 = most important, 2 = second most important and 3 = third most important. Check also if there are others that apply),

          New skills and know-how

          Care, love, trust and security

          Energy, passion and tension

          Product concepts

          Design help

          Brand equity

          Know-how in daily operations

          Organizational routines

          Organizational culture

          Documents, specifications, manuals

          Database

          Patents and licenses

15) Has cooperation between, and actions taken by, any of the chosen companies lead to deeper information and resource exchange like actively supporting other organizations opportunities, eliminating their threats, joint efforts between organizations, employee rotation, etc. Anything "out of the ordinary," please describe.

16) Has either of the VCs actively promoted an atmosphere where cooperation and learning from other organizations is easy and regarded as beneficial, if so, how?

5. Competitive Advantage/ Cooperation's Effectiveness

17) How has (if applicable) new product quality, customer need clarification and product adjustment (to meet customers' expectations) been affected by inter-organizational cooperation during the development process?

18) What kinds of impact can chosen companies' cooperation seen to have on new product / business's performance (feelings and hard data, if applicable)?

19) Do you feel that cooperating with any of the chosen organizations is bound to / has been bound to give you competitive advantage, enhancing your efforts in the market place?

6. Background Information

Year business was established

How many people are employed

Earnings last year

Year when business was/is profitable

Open Ended Interview Questions for VCs

1. Purpose of the Study and This Paper

Purpose of the dissertation is to understand more about inter-organizational cooperation taking place during, and because of, V.C financing. This paper goes through questions that will be discussed with chosen V.C representatives. Questions are open ended, meaning that they should lead conversation loosely while all individual comments, opinions, and views are very welcome during the tenure of the interview.

Companies that are studied are Atom Shockwave, Upoc, Arts Alliance and Allen & Co. Intension is to shed some light on how, and in what ways, inter-organizational interaction affects a start-up while it is developing its products and services. Besides these questions, it would be extremely interesting to hear more about past cooperation with these start-ups as it took place chronologically.

2. Questions

These questions will be asked twice, once for each two researched start-ups. We will start with Atom Shockwave.

1. Individual Investments/ Background

1) When did you first invest in Atom Shockwave, and have there been other rounds of investments?

When you first invested,

2) How many years had you been financing enterprises in this business area?

3) What was your background with this particular industry?

4) Why did you invest in them?

5) What was the core reason (if applicable) that made you pick just them up?

6) Were there any threats about the company at the time of investment that could have made you consider this investment?

7) Marketplace is extremely different now that it was at those times you invested, that aside, are you still confident with the investment?

8) How did you find Atom Shockwave?

9) Excluding the financial commitment, has there been clear mistakes and wrong paths that had to be returned from, regarding actions taken with Atom Shockwave?

10) How new or radical do you consider Atom Shockwave's new product/ service compared to other products in the marketplace? Check the one that applies.

New to both the company and the market

New to the company but known to the market

Repositioning of existing products that were new to the market but not to the company

In intermediate position

Additions to an existing product line

Revisions or improvements of existing products

New products that provide similar performance at lower cost

11) Do you know (or want to take a guess), what are/ were the main external information sources in Atom Shockwave's product/ business development?

2. Inter-organizational Cooperation

12) How did cooperation start and in what phase of the start-up's new product development?

Opportunity Identification

Design

Testing (advertising and product testing, pretest market and pre-launch forecasting, test marketing)

Introduction

Lifecycle management

13) What has your role been, other than financing?

14) In broad terms, what kind of information exchange/ cooperation has been taking place between chosen organizations (Atom Shockwave, Upoc, Arts Alliance and Allen & Co)?

15) Do you have active cooperation with other companies in the same business area as Atom Shockwave? Do you have active cooperation with other private equity companies regarding these companies and their business area?

16) What has your level of participation been with Atom Shockwave,

1. Level of involvement,
2. Type of involvement,
3. How do you feel this involvement has been received in the start-up's end,
4. How do you feel resources you have given (knowledge, help, etc.), have been processed by the receiving organization?

17) Has there been direct cooperation between Atom Shockwave and Upoc that would have been induced by you, if so what kind?

3. Knowledge Creation

18) Do you think your participation has enabled Atom Shockwave to find solutions that couldn't have been found otherwise?

19) Which of these knowledge types (if any) has been transferring between your organization and Atom Shockwave (check 3 most important, 1 = most important, 2 = second most important and 3 = third most important. Check also if there are others that apply),

New skills and know-how

Care, love, trust and security

Energy, passion and tension

Product concepts

Design help

Brand equity

Know-how in daily operations

Organizational routines

Organizational culture

Documents, specifications, manuals

Database

Patents and licenses

20) Has cooperation between, and actions taken by, any of the chosen companies lead to deeper information and resource exchange, like actively supporting other organizations opportunities, eliminating their threats, joint efforts between organizations, employee rotation, etc. Anything "out of the ordinary," please describe.

21) Have you promoted an atmosphere where cooperation and learning from other organizations would be easy and regarded as acceptable and beneficial, if so, how?

4. Competitive Advantage/ Cooperation's Effectiveness

22) What kind of impact do you think your involvement is having/ will have on Atom Shockwave's business's performance (feelings and also hard data, if applicable)?

23) Do you feel that cooperating with any of the chosen organizations is bound to / has been bound to give you competitive advantage, enhancing your efforts in your own business?

5. Background Information

Year your business was established

How many people are employed

Earnings last year

Total assets invested

Venture capitalism is a popular way to fund start-up (SU) companies. Some venture capitalists (VCs) work closely, "hands-on", with financed SUs, whose marketplaces are often difficult to assess due to the radical nature of their innovations. VCs are known for having a pulse on the market, helping SUs with their good reputation, and their ability to convey new tech trends. A tentative qualitative model is suggested in this dissertation that systemizes some elements of the VC-SU cooperation. It gives means to making a VC's "hands-on" approach more successful and financially rewarding. By giving new tools for the cooperation, it potentially enables SUs' business opportunity re-assessment and as a consequence, new competitive advantage. It also gives a different and perhaps a fresh view to the definition of market orientation within a cooperation context.

BUSINESS +
ECONOMY

ART +
DESIGN +
ARCHITECTURE

SCIENCE +
TECHNOLOGY

CROSSOVER

DOCTORAL
DISSERTATIONS