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How to avoid brain drain? Knowledge management as a competitive advantage. Case: Finnish SME growth companies

Entrepreneurship

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INTRODUCTION
The objective of this study is to examine ways of controlling brain drain in growth SMEs and finding competitive edge from knowledge management. The study starts with a pre-examination of growth factors that would explain company growth. As literature and a preliminary research that was conducted go to show it is difficult to find factors which unambiguously would explain a firm's growth. Thus, knowledge management and brain drain were chosen to be looked into more deeply.

THEORY
Growth theories and entrepreneurial theories open the literature part followed by literature on knowledge and knowledge management. This reflects the progression that was followed throughout the research process. Knowledge part of the literature review focuses on tacit knowledge from brain drain prevention aspect. Also, knowledge management as source for competitive advantage is covered.

EMPIRICAL RESEARCH
Empirical data was gathered using qualitative semi-structured interviews conducted with Finnish growth SMEs' directors, owner-founders and employees. Interviewees were asked to describe knowledge management in use from different aspects. Gathered data formed a base to more thorough analysis on how brain drain could be controlled and how knowledge management should be used to attain desired results. The industries covered by this sample included creative tech companies, content marketing, audio hardware and social media tools.

MAIN FINDINGS
The study goes to show that organizations cultural factors, including knowledge sharing and transfer policies, openness, hierarchy recruiting and orientation processes can have a great effect on preventing outflow of crucial knowledge and enhancing competitive advantage. Moreover, good leadership practices including knowledge management can create competitive edge for growth SMEs.

Keywords knowledge management, tacit knowledge, knowledge transfer, brain drain, growth companies, entrepreneurship, SMEs

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1. INTRODUCTION

1.1 Background

Why some growth companies succeed and others don't? What are the crucial factors that enable a company reach healthy and sustainable growth? More importantly: is it possible to define certain factors that are similar to a number of successful growth firms? As previous studies show, growth is not a product of one single factor but a combination of factors (e.g. Mateev & Anastov, Majumdar). Moreover, Mateev and Anastov (2011) suggest that a firm's growth depends on traditional characteristics such as size and age, but also on factors that they describe as firm specific factors: indebtedness, internal financing, future growth opportunities, process and product innovation, and organizational changes. This leads to the same question: Are there any universally, geographically or even within-an-industry tenable factor or set of factors explaining growth?

Following a preliminary research and a statistical study on 21st century Finnish growth companies (Kauppalehti Growth companies, 2015) it became more and more evident that such factors which unambiguously would explain a firm's growth were difficult to find. This, again, is consistent with what Mateev & Anastov (2011) suggest in their research of multiple affecting factors.

This led to thinking that what concepts contribute towards growth and success of firms. What could be drawn out of such firms that are successful growth firms? Mateev & Anastov (2011) (and others) have found a connection between entrepreneurial behavior and high growth. Moreover, entrepreneurial orientation (EO) is seen to have connection with firm performance according to Lumpkin & Dess (1996). This suggests that the growth would also be affected by these concepts.

"For example, high growth tends to be associated with a firm's entrepreneurial behavior" (Mateev & Anastov, 2011).

Another perspective worth analyzing in this context is knowledge and knowledge management in the sense of transfer, sharing, distribution and retaining of firm specific knowledge. As Nonaka and Takeuchi (1995) point out knowledge and more specifically tacit knowledge is an important source of competitive advantage in a firm. The authors continue, insisting that most of the knowledge is tacit and thus more difficult to store systematically and transfer to new employees. This is something that the Japanese companies have been successfully implementing in their organizations and business processes according to Nonaka & Takeuchi. The concept of tacit knowledge was first introduced by Polanyi (1958: 1966) who stated that all knowledge is either tacit or based on tacit knowledge. Polanyi suggests that only a small part of the whole body of knowledge can be expressed explicitly; he proposes that "we know more that we can tell" (Polanyi 1967, p. 4). Connecting the knowledge dimension to growth firms and their performance two research questions were derived:

(i) What role does knowledge management play in a successful growth SME in terms of competitive advantage?
    a. How does tacit knowledge relate to this?

(ii) Can effective knowledge management hinder brain drain in growth companies?

1.2 Research objectives

This research aims to identify the constructs and concepts that have been seen to have a positive correlation with firm performance and growth. Knowledge as a resource and managing of it will be one of the scrutinized perspectives as. The empirical side of this research will have the main focus on that. Secondly, the effect of workplace atmosphere and its relation to fruitful innovation will be considered. In addition to this, innovation and its relation to firm performance in selected forms will be examined in the literature review.

1.3 Limitations

As do every research so does this too have its limitations. The sample was limited to cover only a fraction of Finnish successful growth companies. Nevertheless, the sample is relevant since it cover international Finnish-based growth companies that have already made it not only in Finland but internationally as well. The representation is suitable for a thesis of this extent. The limitation applied to the interview process limiting interviews only to one person per company. Although, the interviewed individuals were of higher positions of the companies which gave generally a top down perspective to the research subject.

2. GROWTH THEORIES

2.1 Growth theories from classical to contemporary

When defining growth, Sautet (2000) offers a quite concise definition: “In the entrepreneurial theory of the firm, the concept of growth regarding the firm is defined as the never-ending discovery and exploitation of profit opportunities by the individuals (managers and employees) in the firm.” This is much in line with Schumpeter’s view of how growth is generated by innovations leading to new products or services to replace old ones. The concept of creative destruction (Schumpeter 1942) describes this process.

Schumpeter as one of the eminent figures of economic development theories also spoke for the importance of entrepreneurs and their role in economy’s continual and self-generated growth in his research. In his book, *The Theory Of Economic Development* (1911), he stressed the significant role of entrepreneurship in economic growth with its embedded innovative nature. As the importance of economic growth to that of a business is undeniable so is the growth of a business itself to economic growth as one vital a building block. Thus, growth is a multidimensional phenomenon. Hereinafter, growth will be analyzed on different perspectives but with an emphasis on the growth of a venture or business.

Edith Penrose (1995 [1959]) had a clear understanding as well that the entrepreneur (in the firm) has a vital role and that this role must be clearly separated from the purely managerial role. In her own words “This extremely personal aspect of the growth of individual firms [the entrepreneurial aspect] has undoubtedly been one of the obstacles in the way of the development of a general theory of the growth of firms” (Penrose 1995 [1959], p. 30).

Early theories focused on understanding economic growth, and attempted to find general determinants of growth that could be applied to any instance under consideration (e.g. *The Walrasian System*). By looking at patterns of growth the hope was to discover some of the laws or principles which govern growth at all times and in all countries. Modern theories tend to accept that conditions for growth change over time, and are often more critical of the attempts to generate *one-size-fits-all* growth theories.

Writers (e.g. Ohmae, 1995; Peters, 1990 and Toffler, 1970 & 1980) took Schumpeter's neoclassical theory and advanced it further giving light and more basis on economic growth theory which differs essentially from the one given by writers before Schumpeter (e.g. Walras 1874). Lahti (2007) concludes "Growth theorists seem to believe that the incentives created by the markets affect profoundly on the pace and direction of economic progress. When humans do set to work in an unexplored area, important new discoveries will emerge."

There are several broad categories of growth theory, including:

1. Linear growth theory
2. Structural change theory
3. Patterns of development theory
4. Dependency theory
5. New-Classical theory
6. New growth theory
7. Property rights

Source:
(http://www.economicsonline.co.uk/Global_economics/Growth_theories.html#Linear_growth_theories)

Size of a firm has implications regarding growth as well. Evans (1987a,b), Hall (1987), and Dunne, Roberts and Samuelson (1988, 1989) findings suggest that the likelihood of survival is positively related to firm size but growth rates, at least for small and young firms, tend to be negatively related to firm size. In other words, the smaller the company the higher the anticipated growth. The motivation behind the emphasis on SME growth in this thesis derives partly from these findings. On the other hand, Dunne, Roberts and Samuelson (1988, 1989) found that the survival rates and growth rates of new firms vary systematically across industries. Again, this indicates to the same direction as stated earlier that there might not be one waterproof factor explaining growth.

How about the people? What is the role of individuals' abilities in growing a venture? In 1982 Jovanovic stated in his paper that entrepreneurs have imperfect information about their innate abilities learning about which would only result by trying entrepreneurship. Jovanovic developed a model in which the aforementioned was tested. "The model shows that the ventures of able and/or lucky entrepreneurs survive and grow, while those of less able and/or unlucky entrepreneurs shrink and exit." Parker (2004, p. 208-232). This illustrates the people side of entrepreneurship and individuals own abilities effect on the performance and eventually the fate of a venture. Jovanovic continued that the entrepreneurs who would exit and no longer continue the development of their venture would also stop trying and not create new ventures. Today, scholars would probably argue this quite strongly as did MacMillan already in 1986 by stating that there is evidence on "repeat entrepreneurship" where failed entrepreneurs create new ventures in order to try again utilizing the gained experience from the past failure(s). This could be compared to using past work experience in developing new skills to takeover more and more challenging and complex tasks and projects. As failure, due to its complex nature (Pretorius 2009) is not always caused by the disabilities of the entrepreneur it would be waste of the experience gained from the different reasons that led to the unwanted outcome. A general opinion is that failure is good as long as one learns from the mistakes influencing it. Mr. Edison put it quite accurately when asked about how he felt failing 10 000 times when creating the light bulb: "I have not failed 10,000 times. I have successfully found 10,000 ways that will not work." Failure is good, crucial even. Schulz backs this by stating that the idea of error is one of the most important things that people are wrong about (2010). She continues "It is our meta-mistake: We are wrong about what it means to be wrong. Far from being a sign of intellectual inferiority, the capacity to err is crucial to human cognition."

Further considering the role of individuals that bring in their contribution in growing a firm it is difficult to define growth without them. The human factor in firm's growth is vital. Backing this statement, Edith Penrose (1995 [1959], p. 53) argued that theories that solely treat organizations as organisms (cp. biological, living organisms) neglecting the human factor in decision-making and motivation when analyzing growth processes cannot be reliable. She continues, supporting her argument with previous evidence, that growth is essentially

connected in human beings' actions – individuals doing something in a group. Concluding this with: "Nothing is gained and much is lost if this fact (*neglecting of humans' effect*) is not explicitly recognized".

By definition, resources within a firm are used to generate growth among other things. But in how to allocate and best use these resources is where the question lies. Sautet (2000, p. 88-89) discusses the best use by pointing out that the resources have capacities and these capacities and their limitedness define firms expansion. Part of the capacities always remain idle which is why there is room for better exploitation of the resources. Sautet continues by stating that growth results from the capacity's potential to change and thus "without unused capacity there is no potential for growth." Here, again, a human factor plays an important role as one resource as well of course, but in a managerial role as well since "capacities are partly idle because the management is cognitively limited". Sautet continues by stating that to find new ways to exploit capacities (and thus grow further) depend in this case on the managers' ability to gain more experience.

Furthermore, size is a much debated factor for growth. Summarized as Gibrat's law it is perhaps one of the most significant but also debated theory in the field. The starting point for this law is that a firm's growth is proportionate to its size and firm growth happens at a same rate regardless how big or small they were initially (Heshmati 2001). Nevertheless, there is a lot of literature holding an opposite view on the relationship, contradicting the Gibrat's law. Some writers state that smaller firms have a higher and more volatile rates of growth which reduces their survival rate (Mansfield, 1962; Du Reitz, 1975; Hall, 1987; Mata, 1994) whereas Singh and Whittington (1975) have found a positive relation between the growth rate volatility and survival of smaller firms.

Jovanovic introduced (1982) the model of "noisy selection" which explains why many companies start under their optimal size. This theory gives great weight on learning by doing and managerial efficiency as main factors determining firms' growth dynamics. The simplified logic behind relates to firm size: if small the survival and growth rate potential is deemed high because of young age and more efficient initial production. This theory assumes that firm age and size are defining factors for growth.

2.2 Contemporary growth theories

It is a widely held fact that only a fraction of new firms will survive and establish a foothold in their market place. As recent empirical surveys have firmly established, it is only small proportions of entrepreneurial firms in advanced economies such as the US and Europe to achieve and maintain high-growth (Acs et al., 2008; Autio and Hölzl, 2008). Nevertheless, these surviving companies bring a relative large piece of the economic impact to the table which was shown by Autio (2009) who found that between 3 and 10 per cent of any new group of firms will deliver 50 to 80 per cent of the whole economic impact of this group over its lifetime. The European Commission has also recognized the importance of high-growth companies to the economy, competitiveness and development and for this reason launched several policies and initiatives to support the emergence of new high-growth companies in addition to enhance existing ones as well (Mitusch, Schimke 2011). These policies are aimed at creating conditions through which small firms can be created and thrive. Mitusch and Schimke conclude that "if the EU is to achieve its goals of speeding up economic growth and creating more and better jobs, it will be SMEs which play an important role." When referring to high-growth companies they use the term gazelles which is commonly used among researchers as well. The term was first introduced by David Birch in his report *The Job Generation Process* (1979). Largely put the term refers to firms growing at a much higher than average rate (or *rapidly growing firms*). Gazelles are also extremely volatile and unstable, constantly taking risks and making mistakes but on the other hand enjoying success when everything goes well (Birch & Medoff 1994, p. 3-14). Birch has always been a spokesperson for the gazelle's role in creating the majority of new jobs. This view has been challenged by Brown, Hamilton & Medoff (1990): "Perhaps the most widespread misconception about small businesses in the United States is that they generate the vast majority of jobs and are therefore the key to economic growth. … Small employers do not create a particularly impressive share of jobs in the economy, especially when we focus on jobs that are not short lived". In 1994 Birch & Medoff joined their forces to find a common ground in this debate on gazelles role in creating jobs and growing the economy. Their results were summarized in the following points (Birch & Medoff, 1994, p. 3-14):

1. The relative role of smaller firms in generating jobs varies enormously from time to time and from place to place.

2. Most small-firm job creation occurs within a relatively small number of firms – the Gazelles.

3. There is a great and growing instability in the US stock of jobs due to the rapidly changing fates of US firms.

Autio (2009) pointed out that as the basic factors driving growth ambition is one of the most important. It alone cannot explain or will not result in growth but the "absence of ambition almost certainly guarantees absence of growth. This is why in the discussion paper (2009) Autio suggests that governments should more focus on the growth ambition than on "proven winners" as past track record rarely succeeds in predicting the future. In their report by the 'Gazelles' expert committee of EU DG Innovation's Europe Innova programme Autio & Hoeltzl (2008) examined high-growth companies and defined what they called "stylized facts" in the following way:

1. High-growth entrepreneurs deliver a disproportionate economic impact relative to their numbers

2. High-growth entrepreneurs are rare

3. High-growth entrepreneurship is not limited to technology sectors

4. High-growth entrepreneurs tend to be highly innovative

5. Achieving high growth can take a long time

6. High-growth entrepreneurs differ from ordinary entrepreneurs in terms of their demographic characteristics

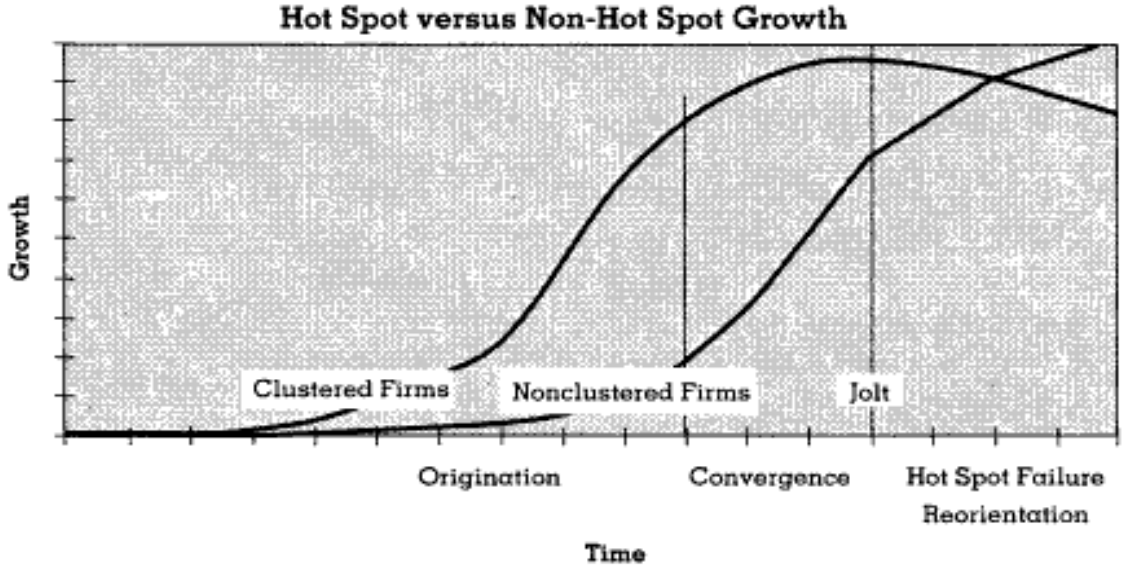
These points take another, though somewhat similar, approach as the one presented earlier by Birch & Medoff when it comes to characterizing high-growth firms.

Geographical factors can also be one explaining factor of economic/firm level growth. Pouder & St. John (1996) approach geographical perspective from a firm cluster point of view. They examine phenomenon called hot spots, an understudied concept (DeNoble & Galbraith, 1992) even though the main idea, geographical clusters and the tendency to the formation of these locusts within an industry has been documented by many *(Bania, Calkins, & Dalenberg, 1992; Lomi, 1995; Maarten de Vet & Scott, 1992; Melecki, 1985; Porter, 1990; Rees & Stafford, 1986; Saxenian, 1994; Scott, 1989*). Now, Pouder & St. John used the relationship between localized competition and the dynamics of organizational founding, growth, and transformation as the starting point in their research. This was suggested by Baum and Mezias (1992: 599) and was seen as a useful research "to specify more fully the significance of localized competitive processes for population dynamics and organizational evolution". The concept of hot spots basically refer to a geographical locus of fast-growing competitive companies who have a tendency to beat the markets, but also suffer a fast downturn after a certain point and even disappear. Another alternative is reorientation after the fall and through this exploring of new opportunities. In lack of a scientific definition for hot spots Pouder & St. John offer one stating that hot spots are regional clusters of firms that:

(a) compete in the same industry
(b) begin as one or several start-up firms that, as a group, grow more rapidly than other industry participants (sales and employment levels)
(c) have the same or very similar immobile physical resource requirements in the long run

Figure below demonstrates the growth of these companies compared to non-clustered ones in relation to time:

Figure 1. Hot spot non-hot spot companies' growth



Source: The Academy of Management Review, Vol. 21, No. 4 (Oct., 1996), pp. 1196

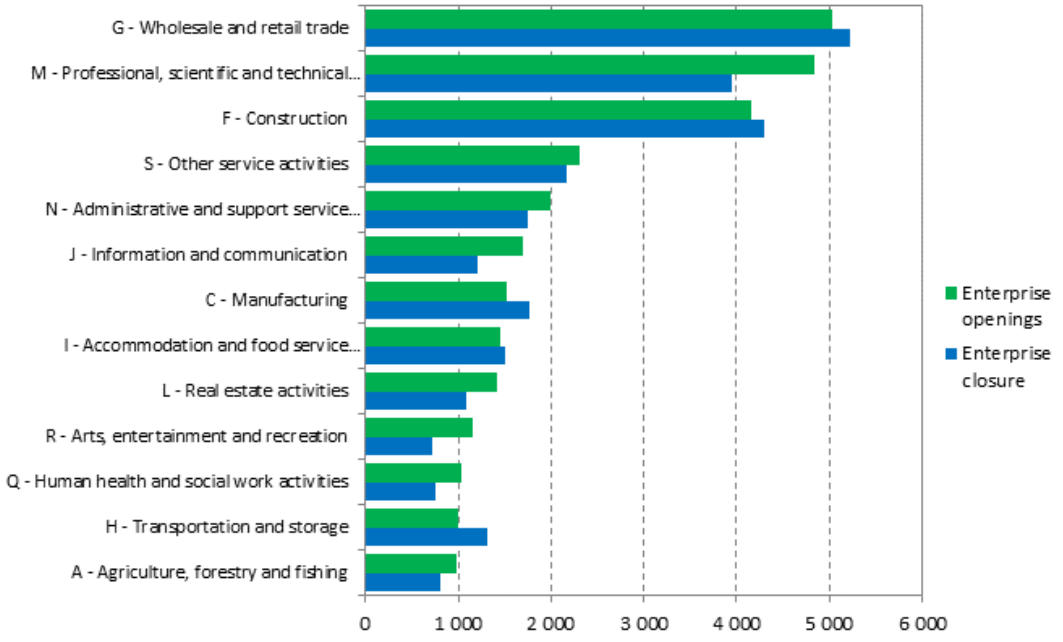
The authors argue that the evolutionary process that the companies in such clusters go through might have a negative impact on innovation on a longer term.

2.3 Enterprise openings and closures statistics

In this chapter a few suggestive figure are provided to give some picture of the opening and closing of enterprises in Finland and the US.

In 2013 there were 30 207 enterprise openings in Finland. This accounts for 8.5% of the total stock of business in Finland in 2013 (Official statistics of Finland). The industry specific table of enterprise openings and closings is as follows:

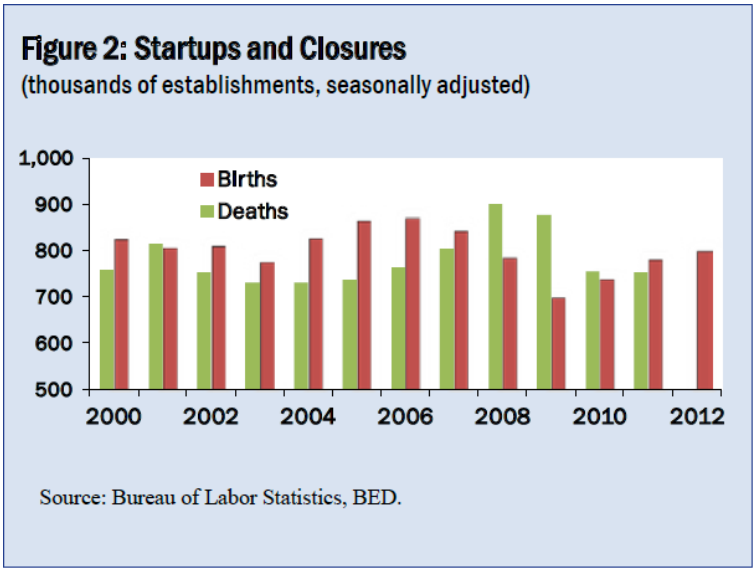
Figure 2. Enterprise openings and closures by industry, Finland 2013



Source: Official Statistics of Finland (OSF): Enterprise openings and closures [e-publication]

Greatest number of openings and closings were in trade industry whereas in "professional, scientific and technical services" industry there were close to the same amount of openings but not as many closures. Comparative statistics from the US (from 2000 to 2012) can be drawn from the figure 3 below:

Figure 3. Startups and Closures 2000-2012



As not all the firms are employing more than one person (i.e. *nonemployers*) the effect on the employment is smaller, obviously. Below is a table from the US showing births and deaths of employing startup businesses:

Table 1. Births and deaths of employing startup businesses.

	2000	2009	2010	2011
Births	481,985	410,038	389,774	409,040
Deaths	407,947	508,668	446,944	470,736

Source: U.S. Census Bureau, BDS.

Roughly put, it is a bit over half of the companies starting each year that employ more than one person in the US.

2.4 Summary

As mentioned in this chapter, gazelles, even though challenged by others, are a great example of growth companies effect on the economy. It goes without saying that there is a great deal of jobs created in bigger than smaller companies that grow on a smaller rate, but still the role of high-growth companies in creating new jobs is not to be overlooked. In the end, new companies growing at a fast pace are the starting point for something bigger.

3. ENTREPRENEUSHIP THEORIES

3.1 Classic entrepreneurship theories

When Joseph A. Schumpeter stepped into the field of economic development research in early 20th century with his contribution *Theory Of Economic Development* his intention was to redefine and thus revolutionize the thinking that Leon Walras had introduced earlier in his work The Elements Of Pure Economics (1874) from which The Walrasian System has emerged. Walras can be seen as the founding father of the general equilibrium theory that was introduced in his work and what Schumpeter used as a basis of his reinterpretation. Schumpeter's interpretation was later introduced in his work to form a neoclassical theory of economics and more relevantly entrepreneurship.

When it comes to entrepreneurial strategies Peter Drucker (1995) has identified four different strategies elaborated further in the following:

1. Being fustest with the moistest
2. Hitting them where they ain't
    a. Creative Imitation
    b. Entrepreneurial Judo
3. Finding and occupying a specialized ecological niche
4. Changing the economic characteristics of a product, a market, or an industry

Being fustest with the moistest means being an absolute leader in a given field and maintaining this position. This is the strategy with potentially the highest reward if successful but with the cost of a higher risk, partly because the difficulty of maintaining the leader's position and the lack of second chances. It's a brutal strategy. The second strategy basically comprises of two completely different strategies. They are C*reative Imitation* and *Entrepreneurial Judo*. *Creative Imitation* is based on taking something that someone else has already developed but failed to exploit and turn it into something lucrative and successful (i.e. harness the opportunity). IBM was one of the most well-known exploiters of this strategy. The company

took the idea of a personal computer from Apple who failed to see the opportunity and turned it into something truly successful. This strategy leans on waiting someone to introduce a new product, service or an idea but in a limited way after which the exploiter takes that *new* and develops it into what it really should have been in order to satisfy the customer and sets the standard followed with market takeover. The second sub-strategy the *Entrepreneurial Judo* is fairly different from the first one. It is always market-focused and market-driven starting always with an analysis of the target industry. That is, figuring out the habits (with special stress on discovering bad habits) of the producers, suppliers and their ways of doing business concluded with market analysis to identify a place where a differentiated strategy would best succeed with least resistance. It is about "securing a beachhead, one which the established leaders do not defend at all or defend only half-heartedly". After this is done and a strong enough foothold is created the newcomers move in to takeover rest of the territory. Then repeat. The established leaders are likely to repeat their own mistakes which makes it easier to succeed for the newcomers. (Drucker, 1985)

Contrary to the aforementioned strategies the third one Drucker introduced, *Finding and occupying a specialized ecological niche* focuses on the control of a market rather than aiming to take the leader's position or dominate the market. The goal is to obtain a practical monopoly on a small market leaving the company relatively small and unknown to a larger audience but on the other hand safe from bigger competition. This strategy can also be divided into three sub-categories: *The Toll-Gate Strategy, The Specialty Skill Strategy, The Specialty Market Strategy.*

The fourth main strategy from Drucker, Changing the economic characteristics of a product, tries to position an already well known and thus older product in a new and different way to make it look and feel more desirable. There are four different approaches that can be used to exploit this strategy that are explained shortly in the following. First one is Creating Customer Utility where a service is added as an extension to meet a specific customer need. Next one is Pricing which aims to change the way customer perceives the price of the product by dividing the price in respect to the product's components. The overall price is not lowered but the price is presented in a new way to reflect the value from customers' viewpoint. The third sub-category called The Customer's Reality is focused on selling a product in a way that the

customer can see it in his or her world where the consumption actually takes place. The fourth one (Delivering Value to the Customer) similarly focuses on what are is it that the customer sees as value-adding to him or her. “It depends on what fits his reality. It depends on what customer sees as value.”

3.2 Effectuation and causation

One of the most interesting and relevant concept in contemporary entrepreneurship theories found and introduced by Saras Sarasvathy (2001) involves acting and thinking within an unpredictable framework. Sarasvathy called this concept effectuation. As a starting point in the authors thinking was the mode of action where existing resources drive the entrepreneurial doing: "effectual models begin with given means and seek to create new ends using non-predictive strategies." (2008). Therefore, it is rather the means that are given not opportunities or goals:

"Effectuators very rarely see opportunities as given or outside of their control. For the most part, they work to *fabricate*, as well as recognize and discover opportunities" (Sarasvathy, Dew, Velamuri, & Venkataraman, 2003).

Another important characteristic of effectuation and effectuators is how failure is regarded. They seek not to avoid failure but to make success happen (Sarasvathy, 2008). Failing is thus an inseparable part of successful venture creation. "Learning to outlive failures by keeping them small and killing them young, and cumulating successes through continual leveraging" (Sarasvathy, 2008) keeps the train moving and learning curve in an upward trend.

Effectual logic is based on five principles that “invert key decision making criteria in received theories and conventional management practices" (Sarasvathy 2009). These principles and their description are as follows:

The *patchwork quilt* principle

This is a principle of means-driven (as opposed to goal-driven) action. The emphasis here is on creating something new with existing means than discovering new ways to achieve given goals.

The *affordable loss* principle

This principle prescribes committing in advance to what one is willing to lose rather than investing in calculations about expected returns to the project.

The *bird-in-hand* principle

This principle involves negotiating with any and all stakeholders who are willing to make actual commitments to the project, without worrying about opportunity costs, or carrying out elaborate competitive analyses.
Furthermore, who comes on board determines the goals of the enterprise. Not vice versa.

The *lemonade* principle

This principle suggests acknowledging and appropriating contingency by leveraging surprises rather than trying to avoid them, overcome them, or adapt to them.

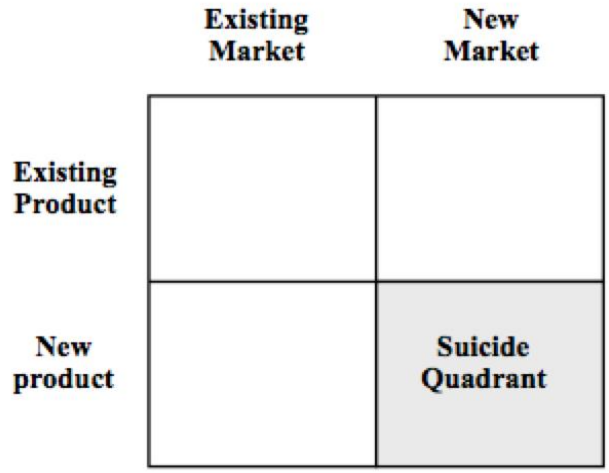
The *pilot-in-the-plane* principle

This principle urges relying on and working with human agency as the prime driver of opportunity rather than limiting entrepreneurial efforts to exploiting exogenous factors such as technological trajectories and socio-economic trends.

Source: Sarasvathy, 2009. *Effectuation: Elements of Entrepreneurial Expertise New Horizons in Entrepreneurship Series*

Sarasvathy also found in her research interviews that experienced entrepreneurs when asked about uncertainty and launching of a new product they preferred a space where the market is new and the product is new. This space was referred to as the "suicide quadrant". The reason for this preference of the great unknown was that if the market was more predictable it would be most probably overtaken by someone with more intellectual and financial capital. "It is only when the market is truly unpredictable that the small, lean and mean startup entrepreneur has a real chance of shaping it into something innovative and valuable."(Sarasvathy 2009, p. 93-94) The below figure illustrates the suicide quadrant space:

Figure 4. Suicide Quadrant space



Source: Sarasvathy, S.D., Effectuation: Elements Of Entrepreneurial Expertise, 2009

Causation, being the more traditional way of thinking, as opposed to effectuation aims to reduce uncertainty by undertaking actions (such as market studies) to find opportunities and to set a goal towards which all the resourcing and thinking will be made (e.g. Sarasvathy, Schluter et. al.). As effectuation, causation is largely put a way of making decisions. What abilities and resources do we need to achieve a given goal?

A good example of a causation process is Philip Kotler's segmentation, targeting & positioning process (STP) (Kotler 1991, p. 63) which is widely utilized in MBA programs worldwide (Sarasvathy 2001):

1. Analyze long-run opportunities in the market.
2. Research and select target markets.
    - Identify segmentation variables and segment the market.
    - Develop profiles of resulting segments.
    - Evaluate the attractiveness of each segment.
    - Select the target segment(s).
    - Identify possible positioning concepts for each target segment.
    - Select, develop, and communicate the chosen positioning concept.
3. Design marketing strategies.
4. Plan marketing programs.
5. Organize, implement, and control marketing effort

In Kotler's step-by-step approach it is assumed that there is an existing market and a given product or service for which the planning is done. This makes it a classical example of causation.

To summarize the difference between effectuation and causation:

"Causation processes take a particular effect as given and focus on selecting between means to create that effect. Effectuation processes take a set of means as given and focus on selecting between possible effects that can be created with that set of means." (Sarasvathy, 2001)

4. KNOWLEDGE IN SMEs

4.1 Introduction

Knowledge is without a doubt one of the most important resource in an organization. Everything is tied up and derived from it. It is a multi-dimensional concept with different forms. It can be tacit or explicit, hidden or visible. Knowledge also transforms from different forms to another. Some of it can be stored and some of it only exist in interaction and individual behavior. In the following more elaborations and ties to growth firms will be provided.

4.2 Definition of knowledge

"Giddens argues that we enact our actions with two main levels of consciousness: practical consciousness and discursive consciousness in our daily lives. While the discursive consciousness gives us our rationalizations for actions and refers to more conscious and therefore more explicitly theoretical knowing, practical consciousness refers to the level of our lives that we do not really think about or theorize. In that sense, we can say that tacit knowledge is produced by our practical consciousness and explicit knowledge is produced by our discursive consciousness". (Nonaka & Toyama, 2003, p. 4)

Even though, a widely held view of today is that knowledge is a commodity or an intellectual asset, it has some contradictory properties that separate it from other commodities. Dalkir (2011) defines these characteristics as follows:

- Using knowledge does not consume it.
- Transferring knowledge does not result in losing it.
- Knowledge is abundant, but the ability to use it is scarce.
- Much of an organization's valuable knowledge walks out the door at the end of the day.

Source: Dalkir, K. (2011), Knowledge Management in Theory and Practice (2nd Edition).

The last point that Dalkir makes by stating that a great deal of knowledge "walks out the door at the end of the day" is in the centrum of this research as it is one of the most important reasons why there should be processes to ensure that the amount of knowledge flooding out of the company with leaving key personnel could be minimized.

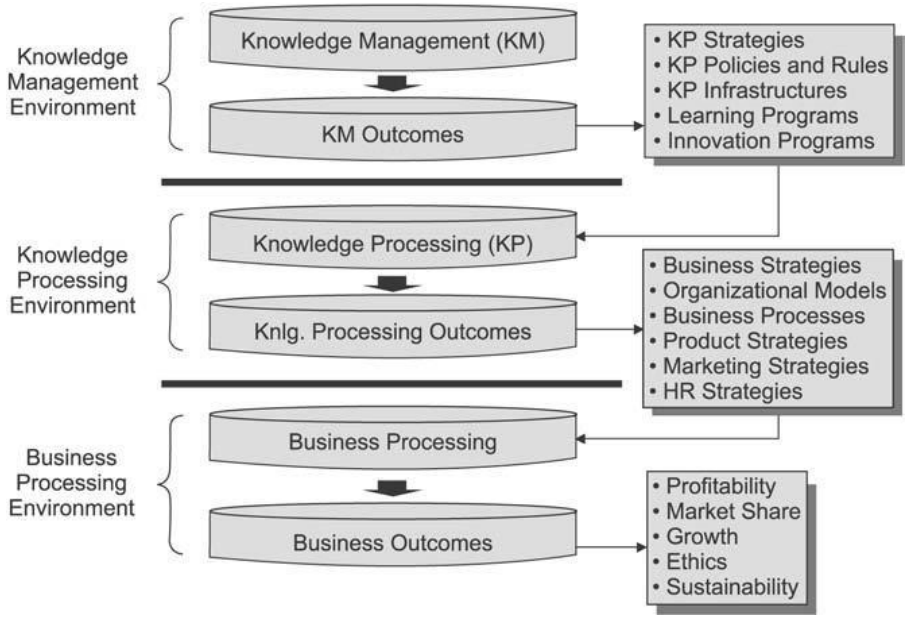
4.3 Knowledge management

"It is a natural function in human organizations, and it is being done all of the time in an informal distributed way by everyone undertaking activity in order to enhance knowledge production and integration tasks." (Firestone & McElroy, 2005)

As knowledge based companies have become increasingly common (Davenport, 2005, p. 5) the need for lower organizational hierarchy has grown to enable more collaboration between workers (Dalkir, 2011). This is one interesting characteristic that can be seen in young and growing companies. Also, "It is important to realize that knowledge management is less of a technical problem, and more of a cultural problem. Technology can assist a well-established knowledge management initiative, but knowledge management will not succeed based solely on technology." (Call, 2005). It is important to understand that knowledge is not something that can be easily stored into systems – it is humans that store it and share it.

Below figure describes how knowledge management is indirectly related to business outcomes through a three stage process:

Figure 5. The three-tier framework.



Source: Firestone & McElroy: Doing Knowledge Management, 2005

The figure shows how knowledge management is indirectly through multiple stages and processes to growth, profitability, market share, ethics and sustainability.

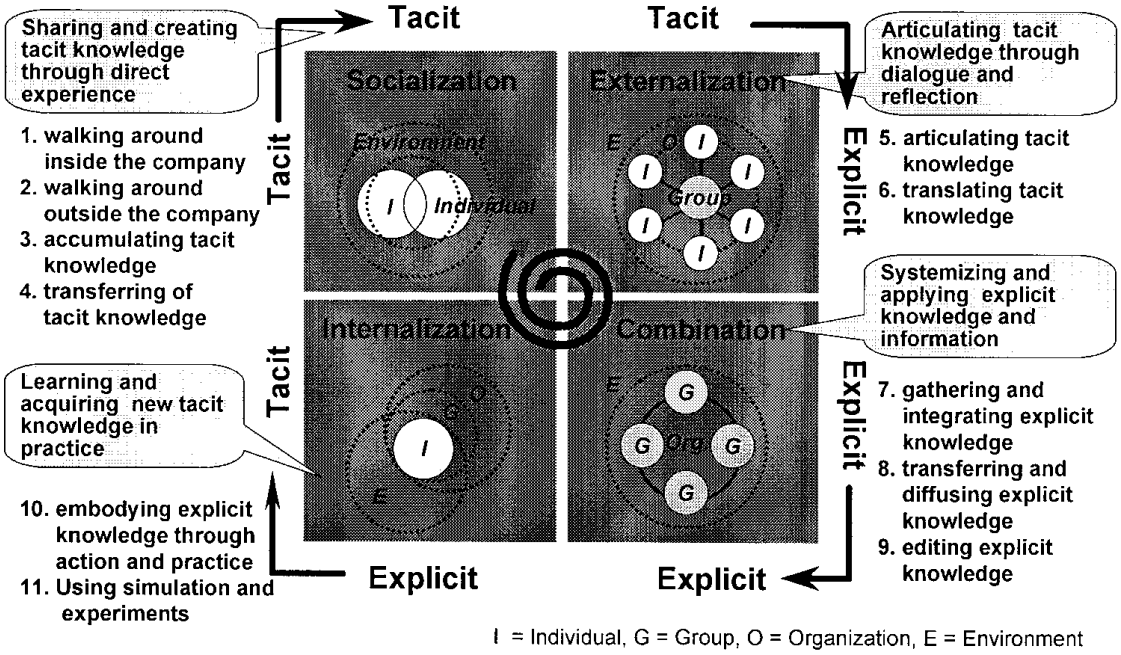
4.4 Knowledge transfer

Definition of knowledge transfer according to Argote & Ingram in organizations is a process through which one individual, group, unit, department or division is influenced by the experience another (2000, p. 151). For example, a chain company in the service industry may add to its knowledge of effective customer service by utilizing the experiences of other branches in its chain. Knowledge transfer is becoming increasingly important in organizations. Organizations are more often organized in global basis, getting bigger and networked due joint ventures, mergers and acquisitions. Effective management of these organizations requires knowledge transfer from team, department, or geographical division to another. (Argote et al. 2000, p. 2-3) This is essential in growth companies in order to maintain growth and keep up with the competition.

Transferring codified and tacit knowledge has been suggested to affect on performance improvement by Edmondson et al. in their research from 2003. “When new practices rely on codified knowledge, transfer and accuracy are likely to be key determinants of successful performance improvement elsewhere. When new practices rely on tacit knowledge, then an improvisational learning-by-doing strategy may be the best route to performance improvement.” (Edmondson et al. 2003, p. 216)

When considering knowledge transfer in a bigger picture we must examine knowledge creation as a whole. Figure below guides us through the process.

Figure 6. SECI model of knowledge creation



Source: Nonaka, I. & Toyama, R.: Knowledge-creating theory revisited, p. 5

The SECI model illustrated in Figure X (above) gives us a picture of how knowledge is created through gathering and interaction. It was first introduced by Nonaka and Takeuchi (1995). To understand the process thoroughly it is important to grasp on what it means to create knowledge and how the interaction takes place. One approach to this is the

Structuration theory introduced by Giddens (1984) which offers a framework to the knowledge creation process. Giddens describes structuration as study of production and reproduction of social systems and the ways in which this takes place in social interaction. In the theory Giddens assumes that humans take roles and fulfill norms as their basic tasks and are affected by their view of what reality is treating all institutions and social practices as structures. Now, back to the SECI model shown above. As Nonaka and Toyama (2003) conclude in their article, creation of knowledge happens in the interactions between human beings and social structures with the conversion process of tacit and explicit knowledge working as a catalyst for creating and augmenting knowledge with actions and interactions of human beings and the environment. This is the process described in the SECI model (Figure X). In terms of actions that humans enact Giddens uses a two level division: discursive consciousness and practical consciousness. These are the levels in which we operate in in our day-to-day actions (Giddens 1984). This is an important division since it links so closely to tacit and explicit knowledge in the sense that tacit knowledge can be said to be produced by our practical consciousness and explicit knowledge from the discursive consciousness (Nonaka & Toyama 2003). This is explained by Nonaka and Toyama by the discursive consciousness's property of referring to a more conscious and more explicitly theoretical knowing and giving us rationalizations for actions. Instead, practical consciousness describes the level of consciousness that one does not think about that much never mind theorize (Nonaka & Toyama 2003).

Socialization is the first step of knowledge creation. This is the phase where tacit knowledge is first born through shared interactions in daily social interactions (Nonaka & Toyama 2003). As tacit knowledge is very time and space specific it can only be absorbed in direct interaction and through shared experiences. A very typical example of this kind of interaction is apprenticeship where a more experienced employee works together with a less experienced one, the apprentice, to transfer tacit knowledge. Also, customer, competitor or supplier specific tacit knowledge can be acquired through shared experiences (e.g. workshops, meetings) but also through personal experiences (e.g. experience as a customer) by using differing roles as a resource of knowledge instead of contradiction (Nonaka & Toyama 2003).

The transformation of tacit knowledge to explicit is called Externalization (2nd phase). Here the key roles are played by dialogue and reflection through which tacit knowledge is articulated and transferred to explicit. One of the most important functions or reasons in that matter of Externalization is the transformation of tacit to explicit making it sharable thus enabling it to become the basis for new knowledge. Logical next step in the SECI model is Combination where the explicit knowledge is gathered together in order to compose more complex and systematic explicit knowledge. After the combining is done and new explicit knowledge is born it is then shared with the members of the organization. New explicit knowledge is now in the system and ready to be internalized (i.e. transfer back to tacit). Internalization is executed by the members of the organization who have acquired the explicit knowledge in the previous stage. The actual internalization is done by incorporating the explicit knowledge into day to day situations and tasks. "Learning-by-doing is an effective method to test, modify and embody explicit knowledge as one's own tacit knowledge". (Nonaka & Toyama 2003)

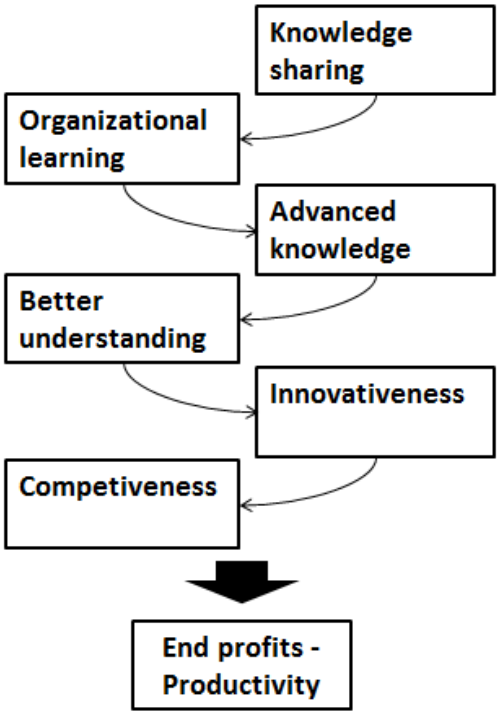
As Nonaka and Toyama state: for knowledge to be created a physical context is needed. The mechanism that is widely used in literature is ba. Nonaka and Toyama characterize ba as a common setting in movement, in which information is shared, made, and used. Bohm (1996) defines ba as a phenomenological time and space where knowledge, as a stream of meaning' develops.

Knowledge sharing which is an important part of knowledge management has also been seen to be connected with end profits (Yang, 2007).

An interesting result from Yang's (2007) research suggests that knowledge sharing and organizational learning (which are interrelated) can correlate positively with organizational effectiveness. This finding is supported by Yang's empirical studies. The primary product of knowledge sharing and organizational learning is improvement of organizational behavior through creating advanced knowledge and better understanding making the organization more innovative and competitive ultimately contributing to end profits. (Yang 2007, p. 89). Yang

illustrates the relation of knowledge sharing to end profits in the figure below:

Figure 7. The chain from knowledge sharing and organizational learning to productivity increase following Yang's research findings.



The continuous learning aspect that is included in the knowledge sharing chain presented by Yang has also seen to be a source of competitive advantage by Ellinger et al. They showed a positive relationship between organizational learning and organizations' financial performance in their research which was made in the USA with a sample of 208 mid-level managers in manufacturing firms. (Ellinger et al. 2002, p. 17)

Barney has classified organizations' resources that can give sustained competitive advantage to organizations to three categories:

1. Physical capital resources
2. Human capital resources
3. Organizational resources

Experience, training and intelligence are implicitly associated to learning - an important part of human capital resources (Barney 1991, p. 100). As shown earlier, learning is linked to sustained competitive advantage which in turn may contribute to improved productivity.

4.5 Knowledge management as a competitive advantage

As Perez (2003) pointed out, people of all the organizational resources are probably the most difficult to control. Perez continues by stating that this is the reason why executives have generally based their competitive strategies on different factors like product and process technology, market niches, financial resources' accessibility, and economies of scale. Consequently, as the markets are even more entrepreneurial and globalized nowadays, intangible assets have risen to a more important role as the traditional tangible assets aren't providing sufficient and sustainable competitive advantage anymore, especially in the most knowledge intensive industries (e.g. IT and software services). Pralahad (1983) recognized this already in the mid 80's by underlining the rising importance of "people-embodied know-how" in relation to competitive advantage. Perez concludes this by pointing out that human capital is thus the most important distinguishing resource over financial or physical capital when talking about market leaders. Ulrich's (1991) research backs this up for these aforementioned reasons and the fact that employee knowledge, skills and abilities make one of the most important and renewable resources which a company can benefit from, a greater importance is given to strategic management of this capital. Besides, in order to organizational resources turn into a wellspring of sustainable competitive advantage, certain attributes must be available. Then again, Barney (1991) contends that these assets must be uncommon, valuable and without substitutes and hard to copy. Collis and Montgomery (1995) continue by stating that the significance of human capital relies on upon the extent to which it adds to the creation of a competitive differentiation. From an economic view, transaction costs theory shows that organizations pick up a competitive advantage when they possess firm-specific assets that can't be duplicated by rivals (Williamson, 1975)

4.6 Knowledge management in distributed teams

Go big or go home said someone somewhere; if you don't want to go home you have to go abroad - at least this is the case in smaller economies such as Finland. To go global means usually distributed organizations and thus distributed teams. As information technology has advanced providing a technological infrastructure which makes it easier for teams to work across "traditional temporal and geographic boundaries" (Salas, Diaz Granados, Klein, Burke, Stagl, Goodwin, Halpin, 2008) it is evident that global companies can utilize the advantages of distributed teams even better. Before this great advancement in technology, it has been almost indispensable to have the whole team in the same physical space to be able to function properly. Already from the change of the millennium there are evidence that most of the large companies have distributed teams (de Lisser, 1999; Kanawattanachai & Yoo, 2002).

One of the forerunners of distributed teams and their management is Mårten Mickos. In the following breakdown he characterizes different aspects of distributed teams, beginning with the benefits:

1. **Better talent.** You can hire the most suitable talent without having to limit your search to the narrow geographical areas where you have offices.

2. **Self-motivated people.** Those who do well working from home or a small office or co-working space are highly motivated low-maintenance people.

3. **Higher productivity.** Employees who don't work in the office will ask for very specific goals to achieve. In an office, however, it is far too easy for managers to ignore the task of setting goals and for team members to pretend to be productive.

4. **Better resistance against external crises.** If all employees are in one office location, the company will have a singular dependency on local weather and traffic conditions, not to mention more severe crises in society. With people spread out, those risks are also spread out.

   Source: School Of Herring, http://schoolofherring.com/2015/09/02/guide-to-leading-and-managing-distributed-teams/

The importance of understanding first the meaning of distributed teams and secondly the implications of having such structure in an organization is of great significance in today's

growth company context (as it is with big MNE's). This holds especially in globally operating companies and in firms with multiple operational locations within a country.

The challenges that arise with distributed teams are characterized as follows by Mickos:

1. Not all people are suited for working in a distributed organization. Not all leaders can lead a distributed team. You will have to screen for this in the hiring process.

2. Error correction may be slower or more costly. When an employee or a team in a far-flung location is not productive, it takes more time and resources to enact a positive change than it would if the persons were all in the same office.

3. It can be difficult to change from a non-distributed model to a distributed one. Organizations who are born distributed will do well as distributed organizations. Those who undergo a change from a highly centralized and office-centric model to a distributed one will have to pay very special attention to the change process.

*Source**:** School Of Herring, http://schoolofherring.com/2015/09/02/guide-to-leading- and-managing-distributed-teams/*

When talking about distributed teams one interesting example are free open source software (FOSS) development teams. It is software development in distributed teams or individuals. A software open for everyone to modify and develop - voluntarily. As Barcomb (2015) describes it "open source community management is largely ad-hoc and relies on practitioner guides." Barcomb tries to find an answer to the question: "what are effective practices for the attraction and retention of open source volunteers?" in her research. Management of such teams is in the center of the author's research. This is an interesting perspective, even though an extreme one, on distributed teams' management and motivating. What makes it even more interesting and relevant to this subject is the lack of management in such projects. There are no actual project leads - the whole process takes place in collaboration and interaction of developers around the globe. Voluntary or not this could be a learning point for lean startup modelling.

5. RESEARCH METHODOLOGY

5.1 Unit of analysis and sampling decisions

This research is a qualitative research that is carried out with semi-structured interviews. The research concentrates on the attributes of individuals of a certain group.

The research questions to which the research aims to answer are:

(i) What role does knowledge management play in a successful growth SME in terms of competitive advantage?
   a. How does tacit knowledge relate to this?

(ii) Can effective knowledge management hinder brain drain in growth companies?

In this chapter data collection and questionnaire construction methods will be introduced. In addition, the analysis methods of this study are explained in more detail. Beginning with explanation of the fundamental issues of the methodology used, followed by introduction of the empirical data methods. Presentation of the actual findings, analysis and results will be covered in chapter 6.

Applied research "strives to improve our understanding of a problem, with the intent of contributing to the solution of that problem" (Bickman & Rog, 2009)

In this field of study, the research interview is one of many methods to collect first-hand data and materials in survey research. The semi-structured interview is also one of the most commonly used forms in research interview which can be applied in both quantitative and qualitative research. As in this case the interviewees were interviewed basically with the same set of questions. Still, as this is an explorative method as well, the questions evolved slightly

along the interview process, but to ensure the comparability between different interviewees the same themes remained throughout the process. This is in line with why many researchers choose to use the structured interview method because it obviously can advance the standardization of both asking of questions and the recording of answers. The goal of the structured interview is to minimize the differences among respondents in any research project, at the same time, to make sure that the respondents' replies which are in response to identical cues can be aggregated. (Bryman and Bell, 2003)

In this research the qualitative research approach was chosen to because it helped to achieve a focused audience. Compared to a bigger target group the results were more in depth and detailed. With qualitative approach the study was able to respond well to the main research problem and sub question.

Auerbach and Silverstein (2003, p. 16) define qualitative research as follows: Qualitative research is research that involves analyzing and interpreting texts and interviews in order to discover meaningful patterns descriptive of a particular phenomenon. Unlike a quantitative approach in which the investigator primarily uses post positivist claims for developing knowledge (i.e., cause and effect thinking, reduction to specific variables and hypotheses and questions, use of measurement and observation, and the test of theories), employs strategies of inquiry such as experiments and surveys, and collects data on predetermined instruments that yield statistical data. (Creswell, J.W., 2003)

Partly from this reason, qualitative approach was chosen because it is able to describe the phenomenon of communication processes and their documentation. This study analyzed people's words in order to understand the research subject as it is constructed by the interviewees and respondents (Maykut & Morehouse, 1994).

The inductive and flexible nature of qualitative data collection methods offers unique advantages in relation to quantitative inquiry. Probably the biggest advantage is the ability to probe into responses or observations as needed and obtain more elaboration when needed. (Qualitative Research, N/A)

The aim of this exploration was to investigate the relation between knowledge management and competitive advantage in Finnish growth companies. And in addition the possible hindering of brain drain through knowledge management practices. The formulated hypotheses were tested using the discourse analysis to determine whether relationships exist between the analyzed data and the presented research framework. Firms of different size and age were interviewed to get wide enough perspective to the subject. The intention was to find typical qualities and features of among the sample that correlate positively with knowledge management and a firm's competitive advantage and decrease of brain drain.

5.2 Data collection

The main source of data was interviews conducted with growth companies of different sizes and from different industries varying from tech companies to content marketing and physical good producers. The interviewees were chosen on the basis of the authors own discretion and judgement of suitable individuals able to answer in depth enough. Chosen individuals influenced at positions such as CEO's, founders and directors on the specific field. One preliminary interview was conducted to test the questions and get feedback, which proved very valuable.

A vast network of friends and acquaintances working at different positions and companies proved very useful, obviously, when choosing interviewees. The interviews concentrated in gathering data from these individuals through semi-structured theme interviews. The interviewed companies were chosen to represent a sample of successful growth companies founded in Finland but operating internationally employing 10 or more persons. Furthermore, as mentioned before the companies were also from different industries, though nearly all of them were involved with digital platforms in some way.

The themes and questions used in the semi-structured interviews are presented in Appendix I.

The research data was collected by recording the interviews to enable in-depth analysis afterwards. The average lenght of one interview was 46 minutes and 48 seconds ranging from 34 min 24 sec to 60 min. The longest interview did not yield the most fruitful or most concise answers. It was the second longest lasting just under 50 minutes. This interviewee had prepared well even though only a description of the subject of the research was briefly described via email before the interview. This is how it was done with all of the interviewees. The point was to have as much natural interaction as possible and chance to explain the questions and the constructs relevant to the interview. In this research, these interviews were semi-structured but also planned to leave room for unexpected turns that the interview might take as Halme et al. (2011) proposed. One of the interviews was made to Dubai via Skype, one in Otaniemi, Espoo and rest of them in Helsinki.

According to Hirsijärvi & Hurme (2000) the interviewer has several roles, such as those of motivator, participant and researcher. This was kept in mind during the interviews by encouraging the interviewee to talk by signaling interest and by remaining objective although taking part in the conversation as a person. At the same time, it was ensured that the interviews remained adequately structured, i.e. on relevant topics. Even though, room for unstructured and more informal discussion was left in the interview situation to unravel some unexpected but possibly relevant points and findings. Some of these proved quite useful actually.

Hirsjärvi and Hurme (2001) continue that in semi-structured interviews some aspects of the interview situation are preset, but there are variables that change according to the situation and the interaction between the interviewer and the interviewee. The theme of the interview is set beforehand but the goal is to enable the interview to flow freely even though predefined questions are to be found some sort of an answer.

The first step after the recording of the interviews was transcribing them into text for further analysis. As all except one of the interviews were made in Finnish the translation phase also added some more time to the process. On the other hand, as you translate from Finnish to English you already start the analysis making it easier to move on to the actual analysis phase

later on. Since Maykut and Morehouse (1994, p.101) argue that words are the data of qualitative research, some of the interviews were transcribed word for word but some summarized in categorized main points around the chosen themes. This obviously was the most time consuming part of the data collection. After that, the interviews were read through several times, during which categories started to emerge. Then the data was organized to categories, which were partly interview themes, partly specific questions. This way, it was possible to compare the answers given by all the interviewees to a specific theme or question. Only few questions remained unanswered by all the respondents.

Then started the actual data coding to find out similarities and dissimilarities among the respondents answers and opinions. This was done by using a letter and theme coding system which enabled me to group the findings using a letter representing each company and a theme under which those answers were gathered from each interviewees. Data analysis was carried out until no new or relevant information could be discovered and the data had reached redundancy (Maykut & Morehouse, 1994, p. 144).

Next phase was to draw conclusions from each of the numbered groups to find aggregate features and factors inside the theme under scrutiny. In this phase the findings and similarities were mapped and written open inside empirical analysis and results sections.

5.3 Data analysis method

The research material was analyzed in two stages, where the interviews were first separated into small pieces to find out the main topics of discussion, and then put together again into a new entity.

The qualitative analyses of my empirical results were mainly based on comparative analysis. The study firstly compared findings from the respondents' interviews. Following and vertical and horizontal comparison of empirical results of the aforementioned subjects. From vertical

direction, the thesis analyzed these different groups of interviewees and from horizontal direction, I analyzed the interactions among individuals in these groups.

Moreover, the analysis of the grouped findings was done in relation to the theory used in this framework. Simultaneously projecting to the previous research done in the field to cross reference and tie the findings into the respective research but also with a goal to find a new factors that affect brain drain in a hindering fashion and give competitive advantage through knowledge management.

This is the process for data analysis which was based on the theoretical framework and the elements of the interview themes. According to Ghauri & Gronhaug (2005), data analysis which is based on theory allows the researcher to have prior assumptions and hunches about critical factors and relationships. Or as Greene (2007, p. 163) puts it, "All analyses [in methodological traditions] are in part detective work and insight."

Detective work indeed as the analysis itself was not even close as straightforward as this chapter might suggest. There was a lot of going back and forth, returning to the categories, rewriting them and starting from the beginning. In this phase I really thanked myself that I had done a good coding system that also allowed this kind of modifications without jeopardizing the whole data set.

Once the analysis was done and the data tapped out the next phase was the utilization of the coded and analyzed data in the conclusion part. This was done by following the logical steps of cross-checking and projecting with the theoretical framework and the validity and reliability rules and definitions, presented in the next sub-chapter, in mind.

5.4 Validity and reliability

The assessment of validity and reliability is an important part of academic research. The validity means that the analysis will examine exactly what it is supposed to. The reliability

refers how certain it would be to get the same results if the study would be renewed using the same method. (Malhotra and Birks 2007) The analyses of the validity and reliability are included in the next paragraphs.

The qualitative research study that I present here followed each of the steps required to generate authentic qualitative findings and theoretical insights. First, the general research questions were defined. Second, the relevant site (Finland) and participants to be studied was selected (Finnish-based successful growth SME individuals). Third, relevant initial data (literature, journals and backround information on how knowledge management is seen in terms of competitive advantage and growth) was collected and then interpreted. Afterwards, further data was collected to refine and clarify gaps in the previous data. Additionally, the additional interviews conducted complemented the findings from the semi-structured interviews. They were used to challenge the claims made by the sample interviewees. Then the information was positioned in the study through the conceptual and theoretical work, which resulted in tighter specification of the research questions and finally, the findings and conclusions were drawn. (Bryman, 2004, p. 269)

Furhermore, like in any qualitative research, four issues of trustworthiness demand attention: credibility, transferability, dependability, and confirmability (Lincoln & Guba, 1985):

> *Credibility* is an evaluation of whether or not the research findings represent a "credible" conceptual interpretation of the data drawn from the participants‘ original data (Lincoln & Guba, 1985, p.296)

> *Transferability* is the degree to which the findings of this inquiry can apply or transfer
> beyond the bounds of the project (Lincoln & Guba, 1985). The findings of this research suggest that a similar study can be conducted in other groups and/or forms of entrepreneurial finance using for example different actors from different backrounds.

Dependability is an assessment of the quality of the integrated processes of data collection, data analysis, and theory generation (Lincoln & Guba, 1985). As earlier mentioned in this chapter, the data collection was done in several stages in order to allow initial interpretation and specification of the research objectives.

Confirmability is a measure of how well the inquiry‘s findings are supported by the data collected (Lincoln & Guba, 1985). This was assured by having big enough sampleconsequently enabling the findings to be sufficiently backed up.

Where quantitative research emphasizes reliability and validity to guarantee rigor, in qualitative research rigor is achieved by verification. In other words, describing very explicitly everything that was done in the course of the study. Bryman & Bell (2003, p. 288) note that what they call external reliability is the degree to which a study can be replicated. In this study, the reliability is enhanced by the effort made to carefully report the course of the study.

Moreover, Bryman (2004) notes that the evaluation criteria for the research design are not straight forward in a study setting. According to him, it depends to a great extent on what the researcher feels are appropriate criteria for the evaluation. Where some consider carefully measurement validity, internal validity, external validity, ecological validity, reliability and replicability, others barely mention them at all.

According to Hirsijärvi & Hurme (2000, p. 184), trustworthiness of interview research data can be improved by developing an accurate interview framework and transcribing the interview data as soon as possible. In this study the interview framework was carefully developed and the transcriptions were made within few days after each interview.

Locke, Silverman and Spirduso (2004) continue by defining internal validity as concerning whether the research has been designed so that it truly deals with what is examined. Can the data collected actually be used to answer the questions being posed? This was assured by

designing the questions and themes accurately and validating them with an assistant professor, Nina Granqvist from Faculty of Organizations and Management.

External validity, on the other hand, questions whether or not the results will remain truthful when subsequently applied to companies, situations or objects outside the original investigation. Contrary to a case study setting the question of external validity or generalizability is much better answered or fulfilled. A single case cannot possibly be represent findings that can be applied more generally to other case as pointed out by Bryman (2004, p. 50). This problem is much smaller when doing multiple interviews and with different companies as it is in this study in question.

This study can be considered valid, as data is collected from a broad enough sample. According to Collis and Hussey (2003, p.58), validity means the overall quality of the study and how the findings present the actual situation. The research should then demonstrate exactly what the researcher claims it does. To ensure that there would be no research errors in this study, the sample is broad enough.

Furthermore, Collis and Hussey (2003, p.58) from their point of view argue that high reliability of a study means that if the same study is repeated, it will lead to the same findings. Since the present study is qualitative, different observes at a different occasion should come up with the same observations and interpretations in order for the study be reliable. This study can be considered trustworthy in this sense as careful investigation of the data was carried out (i.e. the data was tapped out) to avoid misrepresentation and as much data as considered useful was provided for evidence. As Maykut and Morehouse (1994) argue, the goal of qualitative study is to discover emerging patterns, not generalizations. The findings of the present study are therefore contextual, and are based on close observation, careful documentation and profound analysis of the research topic as mentioned in earlier parts of this chapter as well.

Uusitalo (1998, 82) rephrases that it is important for the reader to be able to see how the author has reached their conclusion, and equally important is that the classifications and interpretation rules used in the text are unambiguous and followed consistently. The different

terms used in this study have been defined in the beginning, and clarifications provided where needed. Hence, the criteria for validity and reliability are met.

5.5 Evaluation of the selected method

The methodology selected proved to be quite robust and at times heavy to use especially in terms of data transcription and analysis. To further examine this topic I would suggest the utilization of mixed methods approach. Including quantitative methods as well, a survey questionnaire at minimum. This is mainly because the subject of the research which is relatively new and more importantly the ultimate goal of this study is to produce new knowledge around this phenomenon. If this research would have been made using a mixed method approach (ie. different research methods and datasets would have been used) it would have been called a triangulation research. Triangulation is understood as a research combining different materials, methods, scholars or theories during the study in question and because of this multi-perspective approach triangulation can enhance the credibility of the study (Tuomi & Sarajärvi, 2002).

In spite of the self-criticism above, the qualitative interview study with a convenient sample gave a somewhat comprehensive understanding of the topic in data sense as well. Furthermore, conclusions were successfully drawn. Also, from a personal point of view interviews are much more interesting to conduct than spend most of your time data mining and plugging in front of a computer with statistical tools. Nevertheless, if a larger generalization would have been targeted a quantitative element might have been considered. But as Syrjälä et al. (1996, p. 12-13) suggest a qualitative research is most suited when the study is focused on details of the structures of an event, instead of the general spread of these events, or on the significance of single participants in an event. Also when studying natural phenomena that cannot be duplicated in experiments or where all factors cannot be controlled the qualitative research method is more suitable. This said, one could state that this is quite close to the case

at hand: a defined sample, not big enough to make a generalization to start with but not a meaningless sample either.

Also, Hirsjärvi and Hurme (1985, 15) provide several reasons that suit this study for using interviews:

- The subject lacks objective tests
- Descriptive examples are desired
- Answers require interpretation or specification
- The topic is being mapped out

Completes the validity and reliability part as from several authors' literature presented earlier ultimately backs up the methodology chosen to use in conducting this research.

5.6 Summary

An open mind is essential when forming new concepts and theories. Some researches even say that no literature reviews should be done prior to analysis, but the opinions differ regarding this. All in all, the literature should be read during the research process in order to understand what has already been coded and generated, but also before to get some kind of hunch what could be the direction of one's study and choice of methodology. As it is a process so is the research question in my opinion as it might refine during the process of going through different interview questions and afterwards the interviews itself. This forces one to dive back into the literature from time to time to reach a theoretically backed decisions when refining the question. The most interesting part in creating or scratching the surface of something new is that the whole process of finding and combining information feels fresh in the sense that one is not just putting together age old theories to form something that is already a decade old information when *published.* The quantitative approach chosen also allowed me to involve something from psychology's side in the interview situations in form of dynamic interaction and persuasive and explorative interviewing tactics to dig out the things that the interviewee

might not even come to think, know or want to disclose. Ultimately, this method was chosen to serve the research but also the researcher himself as one of the most important factors in my opinion from the quality point of view of a study is that the author has passion and interest to the subject at hand all the way to the end. This serves the purpose of a quality research and quality researcher.

6. EMPIRICAL FINDINGS, ANALYSIS AND DISCUSSION

"Best practices in knowledge sharing have been gaining increased attention amongst researchers and business managers in recent years. That is, because the commercial success and competitive advantage of companies seems to lay increasingly in the application of knowledge and location of those parts of the organisation where knowledge sharing practices can assist in optimising business goals."

-Riege, A. 2005

This chapter presents interview data, findings and results. This is done by dividing the data and results in accordance of the interview questions, first part consisting of interviewee companies' and representative's presentation. Also, discussions will be included in this chapter. The structure is as follows:

- Company and interviewee characteristics
- How is knowledge management perceived?
    - What is the role of knowledge in the company? - summary table
    - Intangible vs. tangible assets?
- Employee turnover in relation to growth?
- Company hierarchy in relation to knowledge sharing and distribution - summary table
- How do you ensure that essential knowledge doesn't flow out of the company? How to avoid brain drain?
- Knowledge transfer and distribution contributors
- Cultural factors and practices enhancing knowledge transfer & distribution.
- Barriers for knowledge transfer and sharing
- Recruiting and orientation
- KM in relation to competitive advantage

6.1 Company and interviewee characteristics

The interviews were made with five different growth companies that varied with age, size and industry. All of the companies were founded in Finland or Finnish-based (Content Group International, HQ in Dubai) and have had a positive growth since inception and offer products and/or operate in an internationally.

The first company to be interviewed was Reaktor, a creative technology company operating in Finland, USA, and Japan. Founded in 2000 growing ever since to a 31 Meur turnover and 350 headcount company. The interviewee Johanna Eskola is their Corporate Development Director in charge of organizational and supporting services development to enable group level growth and internationalization. The second company, Catchbox was founded in 2012 and employs 10 persons today with offices in Finland, Latvia and USA. The company makes world's first throwable microphones. Interview was done with Pyry Taanila, Lead designer and co-founder - also awarded as "Young Designer of the Year 2015" in Finland - is in charge of product design and development and sales. Third company FaceForce is a social media tool for content moderation and escalation for businesses. The company was founded in 2011 and has since grown to be a 30 people company with offices in Finland and USA. Interview was done with Jenny Wolfram, CEO and founder of the company. Fourth company Qvik is a mobile application and services development company founded in 2008, or same year when Apple's app store was opened. It has since grown to 34 person being the biggest company in Finland solely focused on this industry. The interviewee Ida-Maria Mannonen, Culture Hacker, has 1,5 year experience at the company and is responsible of the company culture development and culture enhancement thru created routines. The fifth company Content Group International is a content creating company for print and online media and corporate events. The company has offices in Dubai (HQ), Singapore, Hong Kong and Helsinki with operations in Europe, Asia, Middle East and Australia with some 20 people working for the company. Interviewee Kalle Salmi is the Head of Middle East and founder at the firm with experience of a successful founding, managing and exiting a company from the same industry in Finland. The companies are coded in the following way for simplification:

R: Reaktor
CB: Catchbox
FF: FaceForce
Q: Qvik
CGI: Content Group International

6.2 How knowledge management is perceived

With this question the goal was to map how knowledge management is understood in the interviewed companies before telling the interviewees anything about the concept. The answers were as follows:

"I was hoping that you would tell me that! I see knowledge management as knowledge that can be stored and knowledge that is on the human side. It's how you share and distribute knowledge" -FF

"What do you mean by knowledge management? Internal communication?" -CB

"I guess it means transparency. The kind of transparency that the right people have sufficient amount of knowledge in order to do what they are expected to do without being afraid of crossing the lines or falling short on a given task. I feel that [knowledge management] has also a lot to do with trust in terms of whom you are willing to share your knowledge with. You shouldn't have to be afraid of sharing." -Q

"Okay, knowledge management… What would it mean in our company? Perhaps our CRM and it's content." -CGI

Reaktor's Johanna Eskola had a thorough understanding what knowledge management is separating this way from the others. Johanna gave a small informational presentation how they see things at this area in their company. For the others, it was a bit unclear at this point what knowledge management means precisely but everyone had some kind of hunch at least. FaceForce's Jenny also had quite good understanding of the duality of knowledge. Qvik's Ida-Maria was on the right track as well with the sharing and trust correlation.

On top of this when asked about how role of knowledge possessed by employees is viewed and has there been challenges with this subject the CB and Q answered with:

"Knowledge shouldn't be connected with power in the sense that someone could maintain a status or position due to undisclosed knowledge. Although, one can't share and perhaps shouldn't share all the knowledge to everyone, but still… It's a bit difficult to describe." -Q

When asked what Ida-Maria means with this statement, she answered:

"Well, that was perhaps a little too extremely put. Of course power and responsibility comes with knowledge. What I meant was that you shouldn't be able to obtain or hold a certain status or position by wrongfully withholding knowledge and information. One shouldn't make oneself irreplaceable by withholding knowledge" -*Q*

Catchbox's Pyry answered to the main question about the role of knowledge in the company by:

"It is highly appreciated, really important. We listen to everybody equally so in this sense we don't have an official value hierarchy. There isn't one person dictating the dialogue and telling how things are. It's not a hippie community but sharing is highly respected." -*CB*

Another sub question was how the interviewees see intangible assets vs. tangible ones? Following answers were placed:

"If you think about it, we have of course physical resources like servers and IT hardware, but the thing that makes us who we are is the people working here. Services that Reaktor produce are as good as the people producing them."-*R*

"Intangible assets/intellectual properties are of high importance. Of course physical assets are in an important role as well since it is a physical product we're selling. Coming from a startup world, though, the talks are usually around the importance of the team itself. It is given even more weight than the product itself. I usually compare the team/company to a band

having a good set list giving a greater probability for producing great songs and albums in the future as well. You found a group whose chemistry is of huge significance - It either works or doesn't. These things are difficult to measure." -CB

"If you consider company valuation it is difficult to find a valuation when so much of the company's value is tied into the people, the team and the chemistry which are hard to measure." -CB

"It has a huge significance in the business as there is so much happening in the ever changing environments (i.e. Facebook). It's a double aspect matter: there's all the data that we get but also knowledge on how things work" -FF

"Can you compare knowledge part and the database in terms of value or competitive edge? Hard to say. Our whole competitive edge builds on the fact that we have this wildly enormous database of content that the whole software runs on. The database and the algorithms as standalone assets are very valuable. Maybe we are too young to have that much knowledge"- FF

"It's a difficult question as we mostly or solely produce intangible digital products." -Q

Rephrasing the question: If we consider the product as a physical asset and think about the intangible assets as the knowledge inside the company, would you say that it is of great importance?

"Well, yes. Nevertheless, in Finland there aren't that much mobile platform or mobile marketing experts whose knowledge and know-how has cumulated throughout the years and absorbed to the company. I'd say maybe this plays the most important role. On top of this, analytics are very important for us. Quality and analytics." -Q

"I would put it this way: in Finland the intangible assets (such as knowledge and sales skills) are more important, but here in the Middle East it's the more tangible such as client lists and employees' personal networks and databases" -CGI

Kalle (CGI) continues:

"This is a cultural thing as well since you don't just call or walk to an executive and start selling your product here. The contacts are hard to create. You have to have created a channel or a relationship to that contact already. This is what a new employee brings to the table in the recruiting stage already. Nevertheless, all this is worthless without skillful workforce. In many cases you think you know how to do your work in the most efficient way but after a year you realize that okay this is how it should be done. So, I do appreciate shat skillfulness and tacit knowledge which is obtained during that time." -CGI

The respondents place a lot of value on the intangible assets and knowledge possessed by the employees. At the same time, FaceForce and CGI give great significance to the databases (FF) and personal networks (CGI) they have. In some cases this is valued even higher as Kalle (CGI) points out. Catchbox, Reaktor and Qvik value the team, people and internal knowledge higher than other forms of knowledge.

6.3 Employee turnover in relation to growth

Next theme handles with employee turnover from the firms perspective - how it is seen by the interviewees and how it affects growth and knowledge management:

"It's the key to success. Definitely a healthy sign when people are coming and going. Referring to Jack Welsh saying that there's a 70% hit rate in recruiting regardless how good recruiter you have. So it's natural that people are coming and going." -FF

"If you take a time span of 3 to 4 years back from one year ago, things have been executed in

quite same manner, but now during the past year we have changed and shifted from startups to more bigger client companies. Addressing the point, there has been turnover on behalf of those people who were not most comfortable with a fast growing company moving to bigger arenas. In that sense it was positive, even though it's always a negative thing in a way." -Q

"Our aim is to keep the people here and help them to grow inside the company which in turn grows the company itself. By recruiting new people and succeeding in keeping them with us ultimately grows the company as well." -CGI

"The goal is to keep it tight, compact. It is not our purpose to build a 100 person corporation. We aim to invest in recruitments that are well targeted and long term." -CB

Pyry from Catchbox also concludes that they try to work with the same crew rather than cherish employee turnover. Basically same thing with Reaktor as they want to recruit people who are willing to develop themselves and thus grow inside the company. All in all based on these answers there can be seen two different approaches to the subject: those who feel turnover is good and those who try to avoid and rather invest in holding on the recruited employees. This might reflect in the recruiting policies as well: fast hire, fast fire vs. multi-stage recruiting process and orientation - a subject that will be touched later on this chapter.

6.4 Hierarchy

What kind of hierarchy does the company have? How does this reflect in flow of knowledge inside the company? Does the prevalent hierarchy pose any challenges? These questions are answered in the following by the interviewees:

"It's very flat. But we're planning to build a management team as well and thus a bit more hierarchy."
"-- for the CEO it is more challenging [to have a flat organization] as you have to make sure that everyone's sharing. But at the same time people might be more reluctant or afraid to share if too much hierarchy would exist. It's a two-fold thing once again."-FF

"There is no actual hierarchy – not in the traditional sense at least – no one person dictates what will be done and how things are done. We have a management team consisting of the founders. Still, the aim is to keep an open atmosphere be open. Not often the management finds itself in a veto situation where managerial power would be used to push an agenda. I find it extremely important in a firm like this with a certain culture" -CB

"Very flat. The CEO basically is everyone's boss on top of which we have UX team leader who has the knowledge of people's skillsets and knowledge in that team. I feel that it's changing. A flat organization has been and still is a good thing. Nevertheless, a bit more precise division of responsibilities could be beneficial as the company grows. This would help to clarify who is ultimately responsible of what so that the ball doesn't drop." -Q

"We strive to keep the organization quite flat. What is quite noteworthy is the culture here which is quite different compared to Finland as it is so multicultural. For example we have employees from US, Nordics, Asia and Middle East. It's very eclectic. We try to teach our employees more towards the Nordic/European company culture." -CGI

With the Nordic/European company culture Kalle from CGI refers to a flat organization but also to:

"-- project ownership and result oriented mentality. The aim is that everyone understands what they are doing in a bigger picture and what the business impact of their work is. Because often times in these cultures [not European], even in quite responsible positions it is quite difficult to know what is the impact of ones work in the bigger picture." -CGI

It became quite evident from the discussions that people might handle only small parts of bigger entities coming from the cultures represented in the company (non-European) and thus

haven’t got the same kind of understanding of the whole project and might lack project ownership mentality. This is something that Kalle and CGI is trying to improve through company culture.

Having some hierarchy, middle management or similar management levels, in a distributed team structure like Face Force’s would make it definitely easier from the management aspect from the interviewee’s opinion. Reaktor also has a flat organization which enhances knowledge flow and transfer in the company. As said, most of the development ideas comes from within the organization, from the employees. Reaktor’s Johanna refers to this model as *pull* meaning that the ideas aren’t pushed by the management but pulled by the employees (i.e. comes up with an idea and communicates it to the organizing party “pulling” the initiative into implementation).

All in all it seems that it is more common to have a flatter organization than a more traditional multi-level hierarchy. Lack of hierarchy in the interviewed companies has also been seen to have a positive effect on knowledge sharing by lowering the threshold for sharing with others and the management. This partly relates to the next subject handling brain drain.

6.5 Brain drain

Intense growth usually means that an organization is living in a constant state of change. This in turn might also reflect in employee changes and whenever there is a change in staff - someone comes in, someone leaves - there is also a risk of crucial knowledge loss associated with the person leaving the company as one might not have shared or left behind all that knowledge he or she had brought in and learned during employment. That is, the company specific knowledge. This is a bigger issue with the key personnel and founders, obviously. It is generally referred to as brain drain. The interviewees were asked if they had encountered such problems or challenges and have they got processes or plans in place to prevent essential knowledge outflow from happening. Answers below:

"This is where the importance of shared knowledge lies. The point that knowledge is not in anyone's table drawer but for all to see. It's in the everyday routines again. If you go all the way back to the recruiting process, we strive to hire people who are willing to share knowledge not the ones who want to keep knowledge to themselves." -R

FaceForce's Jenny presents three points that help prevent brain drain:

- First factor is very practical: **Leaving should happen in good terms.**
  - "You should have at least one month to prepare the whole process."
  - If you are letting someone go you have to give them constant feedback so that they know it's coming
  - If they are the ones who are leaving you should be supportive to get the whole process to work
- **Everything should be done in writing.**
  - Also part of the company policy when having distributed teams everything needs to be on the "Drive" (documented), no communication should be verbal (one of the company rules). E.g. if you have a meeting there should always be someone making notes to be distributed to other teams
- **Collaboration (between departments)**
  - This relates to the policy that everyone (or at least few other people) should know what the others are doing so that if somebody leaves in the middle of a project there is at least few others who know what he/she has been doing. In a growth company you can't have just one person doing one thing.

"-- as we are a distributed company everything has to be documented so all the documentable knowledge is pretty much in different systems. This is one of the advantages of a distributed company. In a company where everyone sits in the same space and do everything together a lot of knowledge is also born in more informal undocumented discussions like lunch breaks, over the desk talks etc." -FF

"Actually we don't have any safety nets for this. In an event like this [an unexpected personnel change] the remaining people would probably know what type of employee would be needed to fulfill the position though quite a large amount of knowledge would still leave with the employee" -CB

"Basically no. As developer usually differ from each other by what language they code so it's not that difficult to replace. Also we have had cases where the orientation of a new employee has been done thoroughly before a person leaves." -Q

"We believe that when people inside the company have the possibility to grow and learn in their own roles it generates growth in the firm level as well. They get more responsibility and can further develop themselves which is the key to firm growth from our perspective. Basically, all of our recruitments start from the same line so to speak and advance inside the firm from there. We don't usually give team leader etc. positions right away when a new person starts. We want to grow people inside the company to the higher positions. This strategy has prevented that experienced people won't leave for another job that easily. We also have exceptionally low employee turnover in Middle East because of this. Almost everyone that has been recruited in the beginning are still here and we've only hired new people as the company has grown." -CGI

The discussion goes on to the data and codified knowledge to which Kalle from CGI states that the bigger problems lie with the valuable client lists that the leaving employees try to take with them:

"It may sound harsh, but here you have to be quite aggressive in case of termination i.e. we are quite quick to pull the plug and cut the cords so to speak when a termination is done. It's recommended you take the laptops etc. when you let someone know about termination otherwise you won't see the equipment or client lists ever again. It's brutal out here.

Nevertheless, people are aware where they stand performance-wise since we have reviews etc. regularly. The termination doesn't come as a surprise to anyone." -CGI

Another perspective to this subject is the brain drain from partners, clients, suppliers etc. to which FaceForce's Jenny gave the following answer:

"Depends is it a supplier or a customer. In case of a supplier (e.g. a law firm) we count on them doing the filling in of a new person and in case of a customer we do it internally by prepping/briefing new people when changes in personnel happens inside the company." -FF

The customs vary: some have the prevention mechanics built in to the culture and routines i.e. the overall transparency and active sharing of knowledge decreases brain drain. Catchbox on the other hand doesn't have any prevention for this and as they are still quite a small company (headcount around 10) the proportion of key personnel is quite big which makes the risk even bigger. This is an issue that could need some more attention as the companies grow further.

Although, all in all, brain drain is been prevented in most cases by transparency and active knowledge sharing which would suggest that knowledge management plays an important role in this matter.

6.6 Knowledge transfer and distribution contributors

In this section the interviewees answered questions regarding routines, tools, situations, processes, day to day working and other factors in the physical environment enhancing knowledge transfer and distribution.

Reaktor has a built-in system for the knowledge transfer. It is not a separate process but a way of working that has been developed throughout years and is part of the company culture. In the following Johanna describes their project management tools and routines from this perspective:

"In practice, if a project is done using scrum we have a Kanban table on the wall with post-its describing each task. The table visualizes what is still to be done and where do we stand project-wise. The post-its move along the project table as the project proceeds. Teams also have dailies where the whole team gathers around the project table each explaining what they are doing now and what's coming up next. Also if any challenges arise (i.e. you need help from others) the team will be tackle those as well. For us it is important to focus on the actual and relevant doing and that everyone has a shared understanding what we are doing now and what comes next." –R

"The project indicators and goals are understood collectively not so that there is some separate process where information is transferred – It is right there in the physical space in front of everyone." -R

"The transparency is built-in to the day to day routines so that if someone is absent from a project meeting from one reason or another it doesn't seize the whole project. Someone always has an idea what he or she was doing."-R

When asked about the methods Johanna answered in the following way:

"When working in two person teams we call it pair-coding which refers to all work done in pairs (e.g. graphic design, coding, etc.). We believe that learning by doing is the best way to transfer knowledge. Working together is a natural way to converse about an issue and transfer knowledge and information from a more experienced person to someone else." -R

"Then we have also mentoring programs where a more experienced employees mentor younger ones. We also visit different teams and projects for learning and get to know what goes on in different projects, what challenges they might have and what tools and learnings they use to overcome these challenges. You just jump in to another team's everyday doings." -R

Reaktor uses their own systems to share the information that is concerned relevant by employees - from all levels. E.g. if a challenge emerges it is addressed in an intra system following a solution to the challenge provided by other members of the organization possessing the needed knowledge or information. On top of the aforementioned knowledge sharing methods (visiting other teams, pair coding, mentoring & built-in working techniques) Reaktor has plenty of trainings and especially internal trainings which they have significantly more than companies on average according to the interviewee. And as shown earlier, there is evidence in the literature (Ellinger et al. 2002, p. 17) that learning is seen to have a positive effect to financial performance.

"We have top professionals working here which is why it is so easy to arrange trainings internally since usually the best people are found here. The trainings initiatives emerge from within so that a group of people or a few people mention that they are interested on a project and knowledge related to that project which leads to that project's member(s) to arrange a training on the subject and share that knowledge." -R

"Another way is that someone notices that a particular skill would benefit him or her or wants to become better at something and then asks that could someone arrange a training on this subject. It is a pull approach instead of someone deciding somewhere high up that this needs to be taught to the employees. The organization's role is to support and enable these trainings and this style of learning not push it." -R

"We also encourage people throughout the organization to share their experiences and stories if a project has gone wrong. It's an important learning aspect. It also requires trust otherwise it wouldn't work. And that is openness in its purest form." -R

It became quite evident from these answers that Reaktor is well organized when it comes to knowledge sharing and transfer inside the organization. As discussed in the previous chapter, this reflects to the brain drain issue as the transparency of Reaktor's way of working decreases knowledge personification and thus the possible outflow of knowledge with leaving personnel.

FaceForce uses Google Drive, Yammer and Trello for sharing, storing and distributing knowledge. Google Drive is basically used as a data dump (i.e. not too organized source of knowledge and information), similarly with Catchbox whereas Reaktor has screened and viewer-friendly documented knowledge in Google Drive being one of the biggest differences. But unlike Reaktor and Catchbox, at FaceForce they:

"-- try not to use whiteboards because of the distributed teams and organization. I know a lot of companies have those on their office walls. Sometimes when having a brainstorm session with a team we use virtual whiteboards that are visible for participants and there to make notes and pin stuff." -FF

Nevertheless, FaceForce has the same kind of workshops for knowledge distribution and project meeting customs as Reaktor:

"Once a month workshops where a certain function holds a knowledge distribution session. It can also be about a certain subject. This is to enhance people's knowledge where we're at and what everyone does." -FF

"Weekly project meetings where everyone shares what they are working with so that everyone else knows what is done atm. Also, if someone would get hit by a car there would be others who know what he or she was doing" -FF

When asked more precisely about project management methods, Jenny (FF) replied:

"We know we should have [those], but we don't. It's pretty ad hoc. But we are hiring an industrial engineer to put the processes in shape."

Catchbox's teams just like FaceForce's are partly distributed as well but most of them are sitting in the same space in Finland:

"We have one big space where everyone is working enabling open interaction with each

other. If someone needs to work individually without any disturbance we have noise cancelling ear phones. Meetings are held in other spaces – open and closed depending on the need."-CB

"The day to day work mostly constructs from interacting with each other and exchanging and reflecting ideas and suggestions. There's not that much individual work. Working as a group enhances the group chemistry. As you've worked with the same guys for years you start to know them better and have a better idea on how they think which shows better sharing of hidden knowledge to everyone" -CB

"For storing and sharing documents and knowledge we use Google Drive to ensure that there is one common place where all the documentable knowledge is and can be found in case of any unexpected change in personnel (i.e. someone gets hit by a car or leaves the company). We try to avoid personification of knowledge" -CB

Pyry (CB) gives an extreme example of the personification of knowledge: "*a master baker who has all the crucial knowledge, leaving of whom form the bakery would affect drastically to the business.*" This could be prevented by having master-apprentice process to transfer that knowledge (of which a great deal is tacit) to a younger follower to ensure continuity in the business. A lot of sharing happens inside the company, which in part ensures the diminished risk for knowledge outflow in Catchbox's case.

For project management Catchbox has their own system:

"A table on the wall including tasks in form of two sided cards (9 per quarter) other side of which is red (not completed) and the other green (task completion). So, each card represent a task, its workload and possible other information concerning it in it. Here we aim that the tasks are tangible. There's usually a Gantt chart connected to it as well. With the table we aim to have the projects visualized so that everyone can see what is done by whom and where the project is at. When a card is flipped (task completion) the owner of the task gets a bottle of bubbly. For now we don't have other incentives at use. There have been talks about creating a bonus system or offer option programs for more senior employees." -CB

Qvik has similarly Google Drive in use on top of a company server. For project management they use *"-- Flowdock as an internal chat with different flows for different projects and chat threads for those projects. Also Jira for putting down hours. Basecamp is in use with marketing team. Some guys at the operative side use Trello as well." -Q*

"In addition, we have a weekly project meeting for mapping where everyone is at regarding their projects. Some projects have daily scrums to check where the project stands. On the other hand, we don't have that much organized team visits or teams helping other teams. But people use the internal chat platforms to help each other and comment other teams' issues. It's in active use." -Q

Like Reaktor, Qvik has also knowledge distribution and transfer included in their daily routines and communication. It is not a separate process.

Kalle's (CGI) answers in the following as well:

"People are quite a lot in the field of course as majority are sales people but we have meetings with the whole gang twice a week. We start and end the week together." In these meetings we go through possible challenges, check the project and personal sales goals and usually have some kind of training session on a given subject as well." "This ensures that everyone knows where all the projects stand. In a firm this size it is still possible, but as we grow bigger this will probably change." -CGI

"The workspace is one big room basically so everyone can interact with each other all the time."
"We also switch places often so the person sitting next to you isn't the same every day. This contributes to knowledge transfer and enhances learning." -CGI

As can be seen similar policies with other interviewed companies exist here as well. Content Group International also has trainings held with initiatives from top down (managers) and bottom up (staff) as well, though:

"[ideas come] mostly from the management level. For example when the managers have observed the day to day working and noticed that some techniques or skills need polishing. The training initiatives that come bottom up are usually related to how project production is carried out." -CGI

"Also, if an employee has a strong expertise from a certain field e.g. from call center work they can share that expertise through a training. Although, here lies a cultural challenge as in most of these cultures people aren't accustomed to take advice from peers. People are used to having this kind of trainings from superiors." -CGI

This cultural challenge on the other hand is one of the biggest differences compared to other interviewed companies. Though, this is mainly due to the more multi-cultural employee base.

To summarize this section, a lot of similarities was found, like project management routines and methods with few exceptions like FaceForce's lack of whiteboard use which were used in all the other companies in some way. This was due to the documentability requirement of project information in a distributed company like FaceForce. Also, occasional or regular trainings were held in most of the companies except Catchbox. Nevertheless, all the companies had intentional knowledge sharing routines of some kind: regular meetings with inclusion of workshops (CGI, R, FF), shared workspace interaction (CB, R, Q, CGI) and sharing tools such as Google Drive (R, FF, CB, Q, CGI). Reaktor and Content Group International used mentoring to aid orientation and learning of new employees.

In the next chapter interviewees will reveal more of these similarities, but from a company culture perspective.

6.7 Cultural factors and practices enhancing knowledge transfer and distribution.

In this chapter the company culture is scrutinized more carefully from the knowledge transfer and distribution angle. How the company culture is connected to this and what are the enhancing factors.

"One of the most important is the concept of power and responsibility meaning that everyone has the responsibility to learn and through that gain power and the right to possess and use it. Being able to have that power and responsibility you have to have a lot of knowledge because it is power. If you don't have enough knowledge for decision making you can't take responsibility over it." -R

"We distribute a lot of company specific information and knowledge. This differs also a lot from what would be customary in another company for example. The starting point is that an employee signing a contract with us already has the will to learn and develop oneself further from first day on. It is endogenous." -R

"One of the biggest differences compared to most companies' way of doing corporate development is that the initiatives come from inside the company and more precisely from the employees. The endogenous desire for self-development and learning drives the company's development." -R

The company culture at Reaktor has been developed throughout the firm's existence to support open atmosphere and active sharing. This is one important point that Johanna (R) brought up continuously: sharing and transparency should be an integral part of everyday routines and doing not an separate process.

FaceForce's approach to company culture is similar from the transparency part:

"[documentation] is part of our culture. We have these 100% honesty and transparency guidelines. For example if we are having a discussion here in Helsinki on something we will distribute it to everyone, keep them in the loop. They don't have to read it but it's there for them to see." -FF

"If there is a conflict we tell people to share the discussion publicly [to solve the conflict]. In this sense we have a very open culture and we even communicate it to the recruits asking them whether they are okay with full openness; If problems occur we want you to disclose it." -FF

When asked about failing and how it is treated in the company culture:

"We start our Monday meetings with a question: How did you fail last week? So we try to encourage people to share their mistakes so others can learn as well." -FF

When asked how they take into account mutual respect and trust between employees in the work community Jenny (FF) answers:

"We try to emphasize what is the goal for why should we be sharing. With examples from the past: 'because this person knew this and this he or she was able to do this' In a way pointing out the meaning of sharing knowledge through a very relatable example (i.e. if this knowledge wouldn't have been shared this and this hadn't been possible). It makes sense to everyone this way. " -FF

"Also, having distributed teams, we have a face to face meeting four times a year with all the teams ("an all hands meeting") after which there's a huge spike in sharing as they've gotten a face to the name making it less frightening to share knowledge. If they've never met the person people are more suspicious in sharing knowledge.

"And also we've found that the sharing should be two way in the sense that both bring something to the table. E.g. if a sales person wants to know something from a tech person but the tech person doesn't get anything in return they feel it's a waste of their time." -FF

The sharing should be two ways according to Jenny (FF). She concludes also that it is important to motivate people to share through reasoning. Pyry answers the same question about culture and mutual respect and trust:

"We feel that trust and mutual respect is essential for the business and organization but also challenging to create or build. I see them more like individual properties. Some have more of them than others. What we focus on is the atmosphere that cherishes good feeling and people enjoy coming to work. Also, recreational activities drive this agenda. Not a hippie community in this sense but sharing is really appreciated highly as is the knowledge possessed by other team members" -CB

Ida-Maria (Q) continues with quite similar answers with Catchbox and Reaktor:

"We try to create an atmosphere, a culture that supports people's working and also knowledge sharing. For example our UX team sits in the same space so that the sharing and distribution happens daily." -Q

"Also, I see trust as awareness that there's always someone you can ask for help or guidance in carrying your task. Trust also means that people work very independently, having a lot of freedom to develop themselves but also responsibility of their own doing. Trust also shows in the mutual respect and support from others that you have what it takes to do your tasks and on the other hand that you believe in your own abilities to succeed in what you do" -Q

"-- my view is that the routines are built-in in the day-to-day doing." -Q

"We practice a very MVP style thinking in the sense that the aim is to create testable prototypes as soon as possible to get feedback, validate assumptions enabling to develop the product further." -Q

Content Group International's co-founder Kalle offers some different perspectives with still a lot of similarities with the other interviewees' answers:

"I feel that by making the communication between different hierarchies more informal we can enhance knowledge sharing and transfer. I think this is when knowledge transfers the best." -CGI

"As opposed to many tech startups for example we don't cherish failure in the same way. Then again, we try to create an atmosphere through the project ownership that it's everyone's responsibility if a mishap or a failure occurs. You can't put the blame on anyone else. Also, the tendency to reveal and talk about challenges and problems regarding your project is better when you take full responsibility of your own project. You also concentrate more in finding a solution to a problem when you have full project ownership." -CGI

"Another thing is that we try to bring the culture closer to European thinking through recruiting; we are targeting Brits and European people in the next recruiting." -CGI

The company cultures are in many ways entailing same qualities such as openness in sharing, transparency and learning from mistakes. And as shown earlier, there is evidence in the literature (Ellinger et al. 2002, p. 17) that learning is seen to have a positive effect to financial performance as well. Responsibility of ones learning, knowledge and actions is another theme that repeated. It can be seen that knowledge management has effect on the cultures as well: most of the sample companies knowingly encourage sharing and openness in interaction.

According to Reagans & McEvily (2003, p. 263) tacit knowledge is harder to transfer than codified knowledge and an individual is more likely to share knowledge to a close personal contact. A similar finding that Dutton (2003) made and referred to as high quality connections. This relates to the finding that trust between fellow employees was seen important by most of the respondents as well.

6.8 Barriers for knowledge transfer and sharing

Sharing and transfer can't always function as perfectly as described in the previous chapters. What barriers has the company encountered or recognized?

"People are scattered around the world, working in different locations" -R

Regardless, Reaktor manages to have a solid knowledge distribution and this way shared understanding what is going on at a given time according to Johanna (R).

When Jenny (FF) was asked has she encountered the phenomenon where people might be reluctant to share knowledge because they were afraid of losing their status or power that comes with knowing something that no one else does:

"Actually yes, that happens here. People also want to make themselves irreplaceable this way (to protect their jobs)." -FF

Another clear barrier exists in cross-departmental communication:
"-- for example between different departments and different people because they might have so different ways of structuring knowledge. E.g. if developers want to share knowledge to say marketing people there is a clash as they usually speak a different language." -FF

"Cross-departmental communication has sometimes created challenges in terms of understanding what sales people have sold and what it means from a developers perspective."-Q

"Another thing is that in some occasions the communication with the client has been done mostly by sales people - who are not that tech oriented yet - leaving the developers out of the loop partly because their lack of sales skills. Due to this evil we have started to create trainings on sales skill for the interested developers. This gives them better basis for client communication and lets them take more responsibility of their own doing." -Q

"Perhaps here lies a place for development: We should be able to better show and communicate to our teams what is allocated to whom. This way people would also be able to choose from projects a little more" -Q

Kalle's (CGI) point is quite clear where the challenges lie:

"Cultural differences place perhaps the biggest barriers. It takes surprisingly long to teach the employees that they don't have to stand in attention or come open the door every time I enter the office. This said, one can only imagine the threshold for an employee to come to the manager when somethings not how it should be in a project."-CGI

"By treating people as people so to speak also impacts the informality and thus the openness. By this I mean that one would also know what happens in the employees' lives outside the work place." -CGI

"Challenges arise also with the multicultural employee base as all the nationalities and cultures don't get along with each other. It can even be quite harsh from time to time for example if two colleagues won't sit in the same room with each other for nationality or cultural reasons." -CGI

The barriers for knowledge sharing vary quite a lot between the companies. Qvik and FaceForce have challenges with the cross-departmental communication and so called language barrier with different fields of knowledge or expertise. This might be reduced with workshops and team visits. Through teaching of the *language*. Another obvious barrier is the location issue that Reaktor mentions as one of their challenge although with today's technology this probably is not that big of a problem anymore than it used to be. Also, the barrier created by the lack of trust in sharing knowledge leading to fear of losing one's status or power is mentioned as well by Jenny (FF) as one of the observed challenges.

6.9 Recruiting and orientation

Next the companies' recruiting and orientation policies are scrutinized in terms how they are affected by knowledge sharing company culture. What kind of people you want working for the company? How does the orientation of a new employee take place?

"We want people who want to be part of the company's development and are willing to share information for the greater good of the company. Basically, if you like what Reaktor provides to its customers you are the kind of person to be working with us. We always interview

potential employees at least three times during which we tell about our operational culture and figure out if supply and demand meet. We ask ourselves, is this the kind of person who would want into our environment. Since this is not for everyone and that's fine. Our recruiting process is not the most traditional one since we aim to get the feel if this is the kind of firm the recruit would want to join or is more like 'what is this place?'" -R

"The orientation actually start already in the recruiting phase. The orientation is also something that is built in the daily routines, ways of doing things that support the learning. Again, it is not a separate process. Different people interview the recruits after which follows mentoring and the whole orientation through which the new employee will receive a lot of new information and knowledge. Rather they need time to absorb and take in all the new knowledge and information. People here are eager to share their thinking and ways of doing things which adds to the knowledge absorption of a new employee." -R

At Reaktor the orientation starts already in the recruiting phase giving the potential employees a thorough understanding what kind of people are wanted in the company. The recruiting process is thus longer and has multiple rounds since the company also wants get a good picture about the recruit. FaceForce has similarities in their recruiting and orientation policy:

"We used to do the fail fast style recruiting but we've now moved to a slower recruitment style with a lot of assignments and steps. We found that when doing the fail fast type of recruiting a lot of time was consumed by the orientation of the new people whilst with the slower more thorough recruitment style the new person already know a lot of the company and of the people in it as they've gone through such an extensive recruiting process. It's much smoother for them and for us to start. On the other hand it takes a lot of time and resources." -FF

"Usually a three day introduction. Actually we use this platform called Talen LMS. It's a software for training people. We have courses from different aspects of the company (customers, functions etc.). Also, if someone comes up with something clever we tell them to create a courses and content." -FF

FaceForce has also partly combined the orientation and recruiting processes with same kind of pull approach to development ideas as Reaktor. Whereas, Catchbox's recruiting and orientation process:

"-- tend to happen ad hoc in most of the cases. We recruit people based on how we feel. We should take respect in to account even more here. If we could only hire people who are more intelligent than you respect would automatically follow. Also, if one could work only with people more intelligent than oneself the management side would also be easier. Not that much micromanagement for example." -CB

"When new personnel is signed the orientation is usually done mouth to mouth though. There is no official orientation package for new team members." -CB

Similarities with the more informal recruiting process, though. Content Group International describes their slightly different recruitment policy in the following:

"Our recruitment policy is based on hire fast, fire fast principle. I've personally followed this principle quite many years. So we recruit new people quite actively, but if the relationship ends already during the first weeks of training we don't consider that it has really ever begun. But then, those who have followed through the training and orientation phase have also stayed in the company."-CGI

"We have actively aimed to establish a process around the orientation and training of a new employee which means that the first month of a new employee is pretty much similar to all new employees. The first week is critical. It is very important that already in the first couple weeks a new recruit has succeeds in his or her work. As this is a quite sales oriented work it is really important to succeed in the early stages already. This is something that we strive to ensure by creating the process around the orientation phase." -CGI

"We usually don't recruit one person at a time but aim to recruit two or three persons at a time at minimum. The orientation begins with introduction to firm values, visions and such which I am in charge usually or if I'm not around the country manager will do this. This is followed by a more individual training including assigning to projects and going through what a given project requires from the recruit. At this stage there's always someone more experienced guiding the new recruit. The idea is to place the newbies sitting next to a more experienced one and have them learn all the essential stuff related to the position like going to a sales call together, using the correct email and cold call tactics, etc. I guess you could call it mentoring. Actually it comes out quite naturally as the company culture is to support this." - *CGI*

Content Group International stands out somewhat with the process-oriented recruiting and orientation policies. Catchbox, Reaktor and FaceForce have a more feeling-based recruiting style. Longer recruiting processes (R, FF) with FaceForce having perhaps the most similarities with CGI as they have standardized their recruiting and orientation policies as well, but didn't follow the fail fast (or hire fast, fire fast) type of recruiting anymore.

In this subject some differences in approaches can be seen between respondents' recruiting and orientation policies. Although, big lines remain still quite similar main differences mostly appearing in the implementation of these policies and in what they look for.

6.10 Knowledge management in relation to competitive advantage

Beginning with the question on how the interviewees viewed knowledge management it was logical to end the data collection to the question on how the respondents saw knowledge management in a growth company such as theirs in relation to competitive advantage. One of the reasons for this is the fact that as can be seen in the answers not all of the respondents

knew what knowledge management meant. As part of the interviewing methodology and purpose the interviewees gave meaning to the concept being able to answer it at the end of the interviews:

"If you think about it, we have of course physical resources like servers and IT hardware, but the thing that makes us who we are is the people working here. Services that Reaktor produces are as good as the people producing them. When people here feel that they learn and develop themselves constantly - and get to be part of business development - it creates competitive advantage as people want to create even better solutions to customers. It's a self-fulfilling system. For this to work you need a company culture that supports all this. This I feel that we have managed to create and don't see that it could work any other way." -R

"I think it affects a lot. Knowledge management is definitely something that we're giving a great deal of attention now and pushing to make it work properly. Knowledge management has a big impact, especially when there is a crisis or something happens it really shows (i.e. when you really need it). I think that's a challenge that especially startups face as lot of the knowledge is usually tied to the founder(s). Also, now that we've brought along investors it shows as they are obviously concerned of the fact that knowledge isn't too centralized. They even wanted me to get a life insurance for this reason. So that's why we are really trying to avoid through distributing and sharing knowledge more." -FF

"It has a great significance. People's competencies and self-development benefits from the sharing and transferring of knowledge. The more you have resources to operate with clients gives confidence and competence to serve the customer better. This relates to the knowledge of a given employee working with a client. The partnership with a client benefits from this. This reflects to how the client feels the relationship and cooperation with the company" -Q

"Well, yeah it has significance. Have we taken into consideration knowledge management as such in our practices? No. Should we take it into consideration more? Maybe. But then again as it is evident, I have managed to answer all these questions about the subject without

recognizing the construct in the beginning would speak for the implicit existence of these aspects in our leadership and corporate practices. In many growth companies the focus is in the growth itself leaving other things to smaller attention. Nevertheless, knowledge management is one of the things that might deserve more attention." -CGI

Results suggest that all the respondents view knowledge management essential to their business and thus for competitive advantage. Reaktor had recognized the concept before the interview and ad a clear understanding what it meant, whereas Catchbox, Qvik, CGI and FaceForce interviewees were a bit hesitant at first but sooner or later during the interviews grew to understand what knowledge management means.

7. DISCUSSION

In this chapter main results from empirical findings are discussed and combined with the theoretical framework. As the division of the empirical findings followed the structure of the conducted interviews this chapter is further narrowed down and condensed to match the research questions and ultimately answer them:

(i) What role does knowledge management play in a successful growth SME in terms of competitive advantage?
    a. How does tacit knowledge relate to this?

(ii) Can knowledge management be used to decrease brain drain in growth companies?

In the following answers will be provided to the aforementioned research questions.

7.1 Knowledge management in relation to growth and competitive advantage

In this section results are combined to collectively answer the question whether knowledge management can induce growth and ultimately give competitive advantage when done in a right manner.

All of the five companies have grown in terms of headcount and turnover since their inception, thus it is assumed that they have a competitive advantage of some degree in their industries. As results show all of the companies understand the meaning of knowledge management - some already before the interview others learned the meaning through the interview. Summa sum arum, all of them found out what it means at some point. Knowledge in its tacit and explicit nature is viewed as an important asset to the sample firms (see chapter 7.2). The interviewed firms find tacit knowledge significant when talking about firm success factors. Most of the companies also have a low hierarchy, transparent and open company culture (see

chapter 7.4 and 7.7) with routines and situations created around sharing, storing and distributing knowledge (see chapter 7.6). The recruiting policies also reflected the company culture and ultimately how they managed knowledge in the firm. Respondents either had a profound multi-stage partly orientation including recruiting process or a more informal process. The main finding was that the companies that had knowledge management done properly had recruiting and orientation processes well planned as well.

Learning and employee self-development and education through workshops, trainings and company-wide meetings were also more often than not utilized and cherished by the respondents (see chapters 7.6 and 7.7). Literature shows (Yang, 2007) that not only organizational learning but also knowledge sharing affects positively companies' innovativeness and competitiveness, thus backing up the hypothesis that knowledge management from this part contributes towards competitive advantage. Furthermore, researchers all the way from 80's to 21st century link human capital and its importance to competitive advantage (Perez, 2003; Ulrich, 1991; Pralahad, 1983) giving grounds to the hypothesis that effective knowledge management can provide competitive advantage. Parallel to this, the respondents see knowledge management - whether it exists explicitly or implicitly - important and something that need to be given attention (see chapter 7.10) in order to conduct successful business. Also, tacit knowledge was shown to be an important dimension and source know-how that should not be dismissed.

These results combined here with the presented previous research answers the first research question that it has a positive effect.

7.2 Can knowledge management be used to decrease brain drain in growth companies?

The second research question is analyzing the knowledge management's role in preventing essential knowledge outflow from the company in case of personnel changes - a phenomenon referred here to as brain drain. As companies grow headcount usually grows as well but might as well occur in employee changes. Depending on how long has an individual worked for the company and in which position or responsibility he or she possesses knowledge of some kind acquired during employment. In case of a key employee who have stayed with the company for a relatively long time the knowledge possessed would most probably be crucial. Whenever an individual such as this leaves a company there is a serious risk for brain drain.

The respondents knew what this phenomenon is and had realized it may be harmful for the company if happened. Firstly, preventive actions were built-in in the routines and the company culture with one of the respondents. Transparency, avoidance of personification of knowledge, sharing and distributing of knowledge, learning and self-development (see chapters 6.5, 6.6 and 6.7) have positive effect on decreasing brain drain. An interesting result arose from one of the respondents which implicitly existed - at least partly - in the other respondents' answers as well regarding prevention of brain drain It consisted of three points (see chapter 6.5 for elaboration):

1. Leaving should happen in good terms
2. Everything should be done in writing
3. Collaboration (between departments)

These three points are already a good basis for proper knowledge management, including openness and honesty (1.), documentation and storing (2.), transparency and knowledge distribution (3.). These themes can be derived from all of the respondents' answers. Continued, when a new person is hired to the open position, factors such as transparency and knowledge sharing ultimately result in better orientation as the knowledge that the ex-

employee had has been absorbed by the organization and its employees making it possible to transfer it to the new employee decreasing the effects of any brain drain. It's a cyclical process of which an application is the SECI model presented by Nonaka and Takeuchi (1995). Even though, a company wouldn't use a process as well-defined as the SECI model the same characteristics, as in this samples' case, might be incorporated in the routines, culture and ways of doing. This is one definition of good knowledge management and it can thus mitigate the risk of knowledge outflow in case of personnel changes i.e. decrease brain drain.

8. CONCLUSIONS

This chapter concludes the thesis by presenting a research summary, suggesting practical implications, discussing the limitations of the study and suggesting further research.

8.1 Research summary

The aim of this study was to examine the importance of knowledge management to growth companies and their competitive advantage. In addition, tacit knowledge and its challenges in a changing environment were studied with brain drain as the main angle to be scrutinized in this context. Moreover, the significance of brain drain in growth companies' framework emerged from the hypothesis that growing companies may experience personnel changes during critical growth which may expose them to knowledge outflow risk when key personnel leave the company. This made interesting to find out whether successful growth companies that the sample represented have somehow recognized this risk and taken measures to mitigate it. At the same time as this is related to knowledge management very closely a second dimension was analyzed as well: does knowledge management have effect on competitive advantage in sampled growth companies.

In the following suggestions are presented based on conclusions derived from the results in previous chapter's discussions.

8.2 Suggestions for growth company managers and owners

As transparency, and openness together with relevant documentation and knowledge sharing was seen to have positive effects on decreased brain drain and overall better performance leading to competitive advantage these values and practices are encouraged to utilize in similar environments and industries represented in the sample. Also, enhancing personnel learning and self-development was seen to have a positive effect on employees' well-being,

obviously, but also to openness and willingness to share with the work community further contributing to diminished brain drain risk.

The leadership methods include knowledge management even though all the interviewees did not recognize or even knew what knowledge management meant. This proves that in this sample knowledge management must have some sort of effect on growth and competitive advantage.

8.3 Suggestions for future research

For future research few extensions an elaborations arose from the subject. “Hierarchy in growth or startup phase companies” in relation to growth and team structures as one of them. This could give insight and useful applications on how a small company could be organized from day one to start maximizing efficiency and knowledge distribution and minimizing brain drain from the very beginning of a startup’s life.

Another subject for future research could be “Company culture as a competitive advantage in growth and startup phase companies”. This is more of an extension of the former. The ideas and products might be easy to replicate up to certain level, but a unique company culture would guarantee a much more sustainable competitive advantage as it is something that is developed over time and with certain dynamics. What are the key factors that contribute towards evolvement of a high performing company culture?

The limitations of the research could also offer more future research suggestions in terms of a wider sample and a more in-depth look in the tacit knowledge and its implications and applications in growth firms.

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APPENDICES

Interview structure **APPENDIX I**

1. In short, what does your company do and what is your role in it?
   1.1. How long have you been working there (OR when was this company founded)?
   1.2. What are you responsibilities in the company?
   1.3. What does your team consist of? How many members? Cross-functional?

2. What does knowledge management mean to you?
   2.1. How about the role of knowledge in your company, how is it viewed?
   2.2. How do you see knowledge in relation to your competitive advantage?
      2.2.1. E.g. compared to more traditional physical or capital assets?
      2.2.2. Considering the high competition nowadays in various industries the traditional resources might not give the competitive edge that they used to. This is one of the reasons why intangible assets are in a very significant role in today's business.

3. What is your take on employee turnover at your company? (Good? Bad?)
   3.1. How do you ensure that essential knowledge doesn't flow out of the company with key personnel leaving the company?
      3.1.1. How to avoid brain drain?
   3.2. Also, do take into consideration partners' and suppliers' turnover? There is also tacit knowledge hidden in these relationships as well.
   3.3. Do you have tools to document and/or store this knowledge?
      3.3.1. If so, how is this storing/codification of knowledge arranged?

4. Have you purposely created situations, processes or spaces to facilitate knowledge transfer?
   4.1. E.g. do you arrange workshops, plan office layout to support this or organize recreational days? Something else?
      4.1.1. How about project management methods and tools? Do you take knowledge transfer into consideration there as well?

5. What kind of hierarchy do you have in your company?
   5.1. How do you see this affects knowledge transfer from one employee to another?

6. How do you see the barriers or challenges in knowledge transfer in you company?
   6.1. What kind of incentives you have created to ensure knowledge transfer and flow? Do they favor groups or individuals?

   6.2. How have you taken into account that there is mutual respect and trust between your employees? (cf. HQC)
      6.2.1. As studies show, when there exists a high quality connection between two persons knowledge travels from one to another much more comprehensively. People don't feel that threatened when giving away powerful knowledge.
   6.3. Do you take this into consideration in the recruiting phase already? What type of people do you want in your company?

7. How do you see knowledge management and knowledge transfer in terms of productivity and efficiency?

8. Finally, how do you see knowledge management in relation to your competitive advantage?

9. Open word.

10. Other interviewees?

APPENDIX 2

Table 2. Case companies' financial information year 2014.

	Qvik	Reaktor	FaceForce	CGI	CatchBox
Turnover	1 603	31 082	217	1 800	310
Headcount	34	350	30	16	10
Turnover change %	7.20	21.60	163.70	N/A	N/A
Profit/loss for the financial year	16	3 885	46	1 000	-1
EBIT %	1.10	16.00	23.00	N/A	1.10
Equity ratio	40.30 %	35.40 %	73.00 %	N/A	1.20 %