Professional MBA
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What big companies can learn from startups to innovate more successfully?

A Master's Thesis submitted for the degree of
"Master of Business Administration"

supervised by
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Vienna, 15.07.2015

Affidavit

I, **Ianina Shevchenko**, hereby declare

1. that I am the sole author of the present Master's Thesis, "WHAT BIG COMPANIES CAN LEARN FROM STARTUPS TO INNOVATE MORE SUCCESSFULLY? ", 64 pages, bound, and that I have not used any source or tool other than those referenced or any other illicit aid or tool, and

2. that I have not prior to this date submitted this Master's Thesis as an examination paper in any form in Austria or abroad.

Vienna, 15.07.2015

Signature

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Abstract

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Abstract:

Although innovations play an important role for a success in nowadays business, not all companies, specifically established big corporations, are able to innovate successfully. Yet, big companies are good at performing incremental innovations, which bring slight improvements but less value. However, they tend to systematically fail in conducting breakthrough innovations. There are a variety of reasons for that: complicated internal regulations, procedures, structures, inefficient innovation processes, etc. Startups and small companies are often more flexible, agile, adaptive and successful in conducting industry-changing innovations. In my master thesis I would like to analyse the internal barriers, preventing big companies from successful innovating, research what start-ups are able to do more efficiently, and outdraw the recommendations, how to incubate best practices from startups into big companies, in order to increase their success rate in introducing innovations.

Table of Contents

1 INTRODUCTION

1.1 Topic Relevance

Today's fast changing corporate environment pushes successful companies to adapt, excel and grow more rapidly than ever before. Consumer needs, technological development, demands growth and new governmental regulations put pressure on delivery and competitive advantages. Sustainable advantages exist no more; instead, understanding and developing an adaptive and changeable setting is key. Focus has been shifted from the size and financial resources to flexibility and fast incorporation of new technology and services. The former confidence in the stability and the value of brands are decreasing, making no room for safety zones. Nowadays the most stable industries and the oldest and strong brands can be torn apart by a new technology or business model. In order to meet the modern marketplace's demands and changes, innovation now tops the corporate agenda for growth; almost every recent survey related to corporate growth and strategy supports this (Arthur D. Little 2005, Cheskin & Fitch:Worldwide 2003, Dundon 2002, The Boston Consulting Group 2005, Tucker 2002, PwC 2013, etc.). Companies worldwide across most industries and regions believe improving their innovation ability is currently the most important lever for enhancing profitability and growth, followed by cost-cutting, growing existing products and growing via acquisitions (Arthur D. Little 2005). Furthermore, for 66% of top managements worldwide, innovation is one of the company's top three strategic priorities. 19% say it is the only high priority (The Boston Consulting Group 2005).

From another perspective, various problems, which established firms experience, when they try to come up with breakthrough

innovations, is not a secret nowadays. But it was not always like that. Joseph Schumpeter, the well-known economist of 20th-century, who became famous because of his leading role in researching innovations and their influence on the society evolution, was convinced that established firms were better prepared to innovate because they had much more available resources for that. Edith Penrose, who is also one of the most bright management researchers of the 20th century, supports this view in her various articles and books.

The modern combination of Internet, fast communications, and venture capital changed people's minds; it has opened the new source of breakthrough innovation: high-growth startup companies. They usually have ambitions for high risks and returns, and no hierarchic systems or brands to limit them, therefore, fast and agile young companies developed many breakthrough innovative products and services that they took the leading role, even though they have a high percentage of failures, and it often take a lot of time, money and effort and various experiments to come to a rival and winning business model. Although big corporations are slightly behind in conducting breakthroughs, they cannot afford losing this battle to "new players". Establish firms permanently facing an increasing pressure from a broad range of sources: shareholders, competitors, customers, globalization, fast-growing development countries, technology development and governmental regulations, among others, to accelerate their rate of innovation in their products, services, and businesses. The former confidence in the stability and the value of brands are decreasing. New generations of companies, driven by technology or business model breakthroughs, are leading the way into the future (Dundon 2002, Johansson 2004, Radjou 2004, Tucker 2002).

It is confirmed that firms who successfully meet the demand for innovative products and services enjoy greater revenues (Radjou,

2004). In virtually every industry, the dominant companies have demonstrated an ability to innovate (Trott, 2002). It is proven that the capacity of innovation excellence can boost profit (EBIT) margins by 4% points, and that the 25% best innovators are getting ten times more output (products, services, etc.) than the 25% worst innovators (Arthur D. Little 2005).

Despite all this, there is strong evidence that big companies cannot manage innovations correctly (Berggren et al. 2005, Christensen 2003, Tucker 2002). Only 25% of business leaders worldwide are pleased with their current innovation performance (Dundon 2002). Less than 50% closely track the financial returns from innovation (The Boston Consulting Group, 2013), and a worrying proportion of companies do not have a precise coordination function at group level for innovation and R&D (Berggren et al. 2005). As a short we can conclude, that big established companies are struggling to innovate properly in many different ways.

1.2 Work Objectives

In my master thesis, I plan to explore the following issues. At the very beginning, I plan to elaborate on the importance of innovations, namely breakthrough ones, for different types of businesses. Afterward, I will evaluate the performance of big established companies and startups in conducting such innovations. In terms of established companies, it will be a general literature, overview and typology, finding reasons why they tend to fail in performing breakthrough innovation and aiming to identify patterns and areas for improvements in terms of processes, structures, and resources. Regarding startups, I will conduct a field study, consisting of interviews and survey, to find fruitful and working elements that can be transferred to corporations.

Finally, general findings and conclusions regarding how to incubate best practices from startups into big companies, to increase their success rate in conducting breakthrough innovations, will be outdrawn.

1.3 Key terminology definition

Key terms, which will be disclosed and used in my master thesis, are: "innovation", "corporation" and "startup". In this chapter, I provide clarification to enterprise and startup as different types of business organizations. Their differences in terms of size, structure, management and operations by definition influence the way they manage, process and implement innovations. Moreover, it is highly important to understand these differences in each stage to outdraw relevant recommendations.

Startup Company

"Startup is a state of mind," - such a definition gave one of the founders of Homejoy, one of the most fast-developing US Startups of 2014. He continues, saying "It is when people join your company and are still making the explicit decision to forgo stability in exchange for the promise of tremendous growth and the excitement of making an immediate impact."

According to Merriam-Webster, start-up means "the act or an instance of setting in operation or motion" or "a fledgling business enterprise." The American Heritage Dictionary suggests it is "a company or undertaking that has recently begun operation."

Though there are no easy, hard and fast rules for defining a startup since types business organizations, sales, profits and numbers of employees shift drastically between companies, countries and

industries, we have filtered out the chatter of coworking spaces and hoodie-wearing employees to start concretely defining a startup.
Still, founders protest that a startup is a culture not delineated by metrics and that a startup can remain so at all ages and sizes.
"It stops being a startup when people do not feel as though what they are doing has an impact," said Russell D'Souza, co-founder of ticket search engine SeatGeek. "I do not think a tipping point is a certain number of people, but an atmosphere that people individually and collectively can't will the company to success."
"But keeping that dynamic culture at a corporation gets much harder with every new employee and with every year that passes," suggested Matt Salzberg, CEO and co-founder of dinner set delivery service Blue Apron.
Steve Blank and Bob Dorf (Blank, Dorf 2012) define a startup as an "organization formed to search for a repeatable and scalable business model." In this case, the verb 'search' is intended to differentiate largely, i.e. highly volume and value, startups from small businesses, such as cafes starting operations in a mature market. The latter implements a well-known existing business strategy whereas a startup explores an unknown or innovative business model to disrupt existing markets, as in the case of Amazon, Uber or Google.

Corporation (i.e. big established company)

Although "corporation" is an older, more common-used and legally defined term, than a "startup", but generally in business by corporation people understand a vast, usually diversified, firm. It is a legal entity that is separate and distinct from its owners. According to Collins English Dictionary (11 th edition, 2012), corporation is:

- legal entity that exists independently of the person or people who have been granted the charter creating it and that is invested

with many of the rights given to individuals: a corporation may enter into contracts, buy and sell property, etc.

- a group of people, as the mayor and aldermen of an incorporated town, legally authorized to act as an individual
- any of the political and economic bodies forming a corporative state, each being composed of the employers and employees in and a specific industry, profession, etc.

One of the first well-known corporations in the world was the British East India Company (1600-1874). The East India Company was the first in terms of creation corporative model that we can observe today: its innovations also included the model of ownership with shareholders, and the organization structure and framework very similar to modern firms. Global in terms of locations, it reached market dominance not only in Asia but also partially in the East and trailblazing the British Empire. In the process, the company shocked its age with the scale of its executive malpractice, stock market excess and human rights abuse (Nick Robins, "The corporation that changed the world", 2006).

Nowadays the world can hardly be imagined without big corporations. For example, in the list of top 100 largest economies in the world 51 are corporations and only 49 are countries, if the analysis is based on a comparison of corporate sales and GDPs (Coghlan, MacKenzie, 'Revealed – the capitalist network that runs the world', New Scientist, October 24, 2011). It was large during the 20th century that corporations rose to power. Today, however, a situation has changed significantly. Since 1960, the average life duration of a company on the top-100 has fallen for more than 60 years to less than 20. As of 2011, only 13% of the original Fortune 500 companies still existed.

Innovation

Generally, innovation is described as an act or process of introducing something new such as an idea, method, product, etc. It may or may not include the invention. Innovation also includes adding and using previously known ideas and solutions in a new context. Therefore, all kinds of innovation include a particular level of newness, which is indeed concerned with novelty. Still, innovation is not merely invention: "Innovation incorporates both creation or discovery aspects, and diffusion or utilization issues" (Deakins and Freel, 2006, p. 117), or, more theoretically, "innovation is commonly defined in terms of tangible entities that can be utilized by different people on different occasions, i.e. something is adaptable or diffusible" (Ford, 1996, p. 1113). Pragmatic views of innovation define it as the successful implementation of creative ideas (Woodmann, et al. 1993) or "as a process that provides added value and a degree of novelty to the organization and its suppliers and customers through the development of new procedures, solutions, products and services as well as new methods of commercialization" (McFadzean, et al. 2005, p. 353).

2 RELATIVE INNOVATION ADVANTAGE OF INCUMBENTS AND STARTUPS

Innovations became an essential and inseparable part of nowadays life. It is impossible to imagine the modern world without implemented, and well-known innovations as well as without prospective ones, which will undoubtedly contribute to the further evolution of mankind. Moreover, most scientists agree that innovations have become the main driving force for economic and social development. Innovation is the the central issue to the society development, as well as to the health and growth of commercial companies. It represents a significant leverage in creating economic value. The penalty for not innovating is enormous. Innovations reflect themselves in a variety of ways and is very hazardous to predict, both in its timing and in its consequences. It is hard to manage the process of making it emerge and succeed. Useful innovation represents the way for companies to escape the downward spiral of diminishing returns, which comes from relying only on operational efficiency. The last decades have seen an enormous generation of technical knowledge. The pace of change in the societal and business environments has been unprecedented. It should make the striving for innovation, and technological innovation, in particular, a top priority on the agenda of countries and companies. The paradox is that this is often not the case. As a result, the flow of needed innovations is far from optimal.

2.1 Innovation in focus as a key driver for sustainable growth

A recent study, conducted by PwC (September, 2013), shows that an innovation is a driver of rapid and profitable revenue growth and is recognized by the executives they interviewed as being integral to sustaining the long-term future of their business. For almost half of the 1,757 executives interviewed (43%), innovation is a 'competitive necessity' for their organization. In five years' time, that figure increases to 51%. As market swings become more unpredictable, firms must make continual, timely, and appropriate changes to their products and processes (Bourgeois & Eisenhardt, 1988; Chandrasekaran et al., 2012) to combat shorter product lifecycles, unsteady consumer demand, and greater product mix (Liu et al., 2012). Despite the emphasis that has been placed on the role of innovation in firm competitiveness and survival, many companies have still failed to adapt partially or wholly due to their inability to simultaneously pursue and succeed in existing and growth product markets (Davila & Epstein, 2014). Without the ability to succeed in current and new markets, firm risks losing customers and being replaced by rival companies (Schreuders & Legesse, 2012).

A company's competitiveness strongly depends on its innovativeness at the 'global frontier' (Porter and Stern 2001, p. 28), as innovation is not only an important factor for economic progress but also an essential element in the competition of companies and nations in general (Beaver and Prince, 2002). It is confirmed that firms who successfully meet the demand for innovative products and services enjoy greater revenues (Radjou, 2004). In virtually every industry from aerospace to pharmaceuticals and from motorcars to computers, dominant

companies have demonstrated an ability to innovate (Trott, 2002). It is proven that the capacity of innovation excellence can boost profit (EBIT) margins by 4% points, and that the 25% best innovators are getting ten times more output (products, services, etc.) than the 25% worst innovators (Arthur D. Little, 2005). Additionally, it has been shown that mainly non-technical innovation is the new basis for competition (Bergren et al. 2005, Dundon 2002, The European Innovation Scoreboard 2004, Williams 2003).

Innovation is currently higher up on the agenda than ever. The former confidence in the stability and the value of brands are decreasing since even the most stable brands can be torn apart by new technology or new business models.

2.2 Types of Innovations

Some frameworks have been used to look at types of innovations. These approaches for categorizing innovation consider the sources of innovation from past successes or attempt to identify where to look for innovation in the future. A central concern of corporate strategy has to do with making choices about how much to invest in different types of activities, connected to innovations.

One way of dividing innovation into different types is in terms of what kind of change it supplies. A common traditional view is to separate between radical (breakthrough) and incremental innovation, where radical innovation refers to a dramatic change transforming existing markets or industries, or creating new ones, with help from products, processes or services with unique performance features. Incremental innovation, on the other hand, improves competitiveness within current markets or industries, with help from cost or feature improvements in existing products, services or processes (Kotelnikov, 2005, Trott, 2002).

The key four types of innovations will be described above:

- Incremental
- Differential
- Disruptive
- Breakthrough

Incremental Innovation

Incremental innovation – Incremental changes to existing products, projects that are typically focused on line changes or improvements in a firm's existing product offerings (Tushman and O'Reilly, 1996; Ireland et al., 2003);

Incremental ideas have to do with improving the current product by developing next generations and so on until the product reaches the end of its life cycle. Normally, large companies are excellent at creating sustaining innovations because their resources, business processes, and cultures are setups in a way to enable sustaining efforts. Typical sustaining efforts include the following: feature fixes/additions, cost reductions or product line expansions.

Most breakthrough innovations will not leave a long life without incremental and supportive activities behind. And this sustaining activities helps to maximize profitability because extra costs can be excluded, and the advantages of the product (the value proposition) can continuously raise.

Differential Innovation

Differential innovation – New products for the same markets, moderately innovative products for existing markets (Kleinschmidt & Cooper, 1991)

New market innovations could be very successful if they executed in a right and profitable way. In some situations, all what is needed is only to introduce a product into some new market and afterward

educating the users, both current and new, how to use it, which benefits can they get, and some additional services. . In other cases, in order to get success in the new market, companies need to make some modifications to the product or services and quickly proceed.

The strategy behind new market innovations can help to succeed in benefits leadership or cost leadership.

Disruptive Innovation

Disruptive innovation – New products for new markets (Crawford and Di Benedetto, 2002);

A disruptive innovation (Govindarajan and Kopalle 2006a, p. 15; Christensen 1997) introduces a different set of features, performance, and price attributes relative to existing products, making it an unattractive combination for mainstream customers at the time of product introduction because of inferior performance on the attributes these customers value and/or a high price—although a different customer segment may value the new attributes. Subsequent developments over time, however, raise the new product's attributes to a level sufficient to satisfy mainstream customers, thus attracting more of the mainstream market (Govindarajan and Kopalle 2006a, p. 15).

Breakthrough Innovation

Breakthrough innovation – New products that create new markets that usually refer to revolutionary change in firms, markets and industries, which provide substantially higher customer benefits relative to current products in the industry (Urban, Weinberg & Hauser 1996; Christensen and Raynor, 2003; Ireland et al., 2003).

A breakthrough innovation is a thing most people think of when they imagine innovations – something very new, brand new and

way ahead of the next big thing. Additionally, a breakthrough product often combines the functionality of several different products all into one. This innovations type introduces a significant change in performance, discrete step in characteristics, usage of new technology and value given to users. A technological breakthrough is a product, service, or process that involves scientific principles that are substantially different from those of existing products, services, or processes (Chandy and Tellis 1998). An alternate label for such an innovation is platform innovation (Tellis and Sood 2008, p. 153). The first electronic cameras were technological breakthroughs since they used a core technology - electronic imaging - to take photographs, in contrast to existing cameras that relied on celluloid roll technology to take pictures.
From the perspective of a strategy, breakthrough innovations are providing long-lasting potential and high value benefits or to both companies and users.

2.2.5 Corporative incremental innovations versus Entrepreneurial Breakthroughs

It is hard to investigate who was first to analyze and research the Incremental - Breakthrough dichotomy, partly because many authors used this concept in their works, often with a different terminology explanation but expressing the same ideas. Abernathy differentiated incremental from breakthrough innovation already in 1978, well-known Porter in 1986 discussed a very similar concept and described them as relatively continuous and discontinuous industrial changes. We can also find authors who define Incremental vs. Breakthrough innovations (Tushman and Anderson) and Conservative vs. Radical innovations (Abernathy and Clark).

There are two different ways in which it is typical to separate an incremental from a breakthrough innovation.

The first is an internal aspect, based on the knowledge and resources involved. An incremental innovation will build upon existing knowledge and resources within a certain company, meaning it will be competence enhancing. A breakthrough innovation, on the other hand, will require entirely new knowledge and resources and will, therefore, destroy previous competences.

The second approach, the external one, differentiates the innovation based on the changes in technology and the overall impact competitiveness of the market. An incremental innovation will involve modest changes in technologies and the current products on the market will still be competitive. A breakthrough innovation will instead lead to large technological changes, redefining the current products non-competitive and obsolete.

In this context, it is very clear, that the incumbents will be in a better position when additional innovation since they can use the available knowledge and resources to take advantage of the whole process. New entrants, on the contrary, a great advantage in radical innovation, because they do not have to change their background knowledge.

In addition,

the holding may have a hard time trying to develop a radical innovation, because they work under the direction of different "mentality", fixed short-term tasks and strategy, moreover, they have fewer incentives to invest in innovations in order not to kill the existing products. Kodak example illustrates this relatively good. Kodak dominated the market for many years, and after this extended period, all additional innovations strengthened its leadership. Once the market has experienced radical innovations, entry into digital technology, Kodak has struggled to defend their

turf against new participators. The totally new technology required different knowledge, resources and thinking.

The two extremes – incremental and breakthrough innovations – are so different that they cannot be managed in the same way. Moreover, they way of management often determines, what company will get as the result.

Managing incremental innovation is about managing knowledge.

Breakthrough innovation moves the current strategy forward. It is about managing ignorance and uncertainty because innovation efforts move away from existing products and services towards new technologies and new business models, uncertainty increases, the risk goes up, and knowledge is sparser.

In established companies, innovation is mostly achieved by tiny, non-risky incremental steps of additional services to extra basic functionalities. They depend on short product lifecycles, and time to return R&D investments is extremely limited. Success is very much predictable with the long-term execution of well-defined innovation processes and in-depth knowledge of their products, markets and customers in the core business units. The innovation paradox occurs when the aggressive pursuit of operational excellence and incremental innovation takes away the possibility of creating fruitful breakthrough innovation.

According to PwC recent survey ("Breakthrough innovation and growth", September 2013), the leading innovators in study are targeting a higher proportion of breakthrough and radical innovations, particularly around products, services, and technology and business models. In some areas, the proportion is around twice that of the less innovative companies. Including significantly higher amounts of breakthrough and radical innovation is a significant shift in the traditional approach to innovation. Historically companies used portfolios heavily weighted toward incremental innovations. Sometimes companies spent as much as 90% of their total

investment driving incremental improvements. By paying more attention to breakthrough and radical advances, companies are setting the stage for higher growth rates.

2.2.6 Ambidexterity: managing exploration-exploitation paradigm

Existing concepts in innovation management provide a limited perspective on four innovation mentioned above models. The exploration-exploitation dichotomy could be very useful in describing the incremental-breakthrough dimension. They are two broad types of qualitatively different learning activities, between which firms divide attention and resources—exploration and exploitation—have been proposed in the literature. These studies have shown that exploration and exploitation require substantially different structures, processes, strategies, capabilities, and cultures to pursue and may have different impacts on firm adaptation and performance.

Exploration can be defined as the "things captured by terms such as search, variation, risk taking, experimentation, play, flexibility, discovery, and innovation" (March 1991). Stated another way, exploration is the search for new external knowledge and opportunities (Kristal et al., 2010) with the focus on producing radical change and enhancing the organization's ability to quickly adapt to market changes (Sarkees et al., 2010). On the other hand, exploitation includes things such as "refinement, choice, production, efficiency, selection, implementation and execution" (March 1991).

That is, exploitation is the employment and refinement of internal firm knowledge (Kristal et al., 2010) and operations that can allow the firm to realize incremental changes and achieve gains from existing markets (Sarkees et al., 2010). Both exploration and exploitation play vital roles in innovation, which Subramaniam and Youndt (2005) argue are due to the intricacies of knowledge

management processes used for distinguishing and using ideas, tools, and favorable circumstances to develop new or improved products or services. Andriopoulos and Lewis (2009) find these innovation processes to be important also for continual renewal of firm capabilities and organizational survival. Tushman and O'Reilly III (1996) support this assertion by stating that balancing exploration and exploitation is necessary for the enduring success of the organization.

3 ANALYSIS OF INNOVATION SYSTEMS IN ESTABLISHED FIRMS AND STARTUPS

Innovation, understood in a broad sense as technological and non-technological innovation, widely defined in above chapters, takes place within a complex system of relationships that make up the so-called “innovation systems”. An innovation system is defined as “the set of elements that, at the national, regional or local level, act and interact, both for and against, in any process of creation, dissemination and use of economically useful knowledge” (COTEC, 2000).

As it is stated in the book by Tony Davila and Marc Epstein "How to Become Innovative" (2013), "innovation systems are established policies, procedures, and information mechanisms that facilitate the innovation process within and across organizations". They are the mechanisms by which innovation (and the other tasks of organizations) gets done. They determine the shape of daily interactions and decisions of the staff members: the order in which work is taking place, how it is prioritized and evaluated on the daily performances, and how different parts of the organization use the organizational structure to collaborate and communicate. In another book by Davila and Epstein "Making innovations work", they continue by explaining, that "making decisions on product innovation requires communication between many parts of the organization, including R&D, manufacturing, marketing and sales, and finance, as well as processes and criteria for making the decisions". It clearly means, that two organizations with the same structures will get very different results regarding innovation activities, because they will base in part on the systems they have

built and the consistency with which they are following day-to-day. For innovation to happen successfully, an explicit process must be in place to manage all the steps of innovation, from design to measurement and reward.

Based on Porter (1985), we can conclude, that the starting point for innovative activities within the company can be named technological development as a supportive actions, whereby technology development can be similar to both R&D and innovation action. The described innovation process consists of the steps like: idea management, opportunity recognition, research opportunity, idea development and commercialization (as introduced by Shaw et al. 2005) and diffusion (as introduced by McFadzean et al. 2005). Therefore, commercialization is the real practical implications of the idea, with the first usage by customers and appearance on the markets, however, the first phase comprises the lead to a long-term establishment of the new product, process or company.

Understanding the important role that firms play in the systems of innovation, researchers have been interested in determining which factors influence the decision to innovate and the effect of innovation effort.

Alexander Brem in his article "Linking innovation and entrepreneurship" analysis, how innovation systems can be seen in established company structure and strategy, and explains, which place it take. He is stating, that in general, "innovation is seen as a primary engine for a new company to profitably enter a market and is a central force for driving competition among companies (Dosi et al. 1997)". But is this true for small and big companies at the same time? In this context, Penrose (1959) states that a small company is not only a large corporation in miniature, so they are supposed to differ in their innovation activities as well (Voigt et al. 2003). Big companies are expected to have a higher rate of innovativeness than smaller ones (e.g. Mowery and Rosenberg 1998), but this view

was partly reconsidered, as small companies can be even more successful in innovative activities than large corporations (e.g. Herbig et al. 1994; van Dijk et al. 1997; Koeller 1996; Schwalbach and Zimmerman 1991). This statement was supported by the introduction of Christensen's 'Innovators Dilemma' (1997), according to which large companies have difficulties with abandoning well-established routines and practices, while smaller companies are much more flexible and adaptable. Therefore, they are supposed to be more innovative, especially when it comes to the creation of new products and industries. However, as far as technology diffusion and more process-oriented innovations are concerned, large companies are supposed to have an advantage, due to their financial resources and process know-how (Smith 2006; Teece 1986).

Additionally, in the list of the significant innovative breakthroughs of the 20th century, a substantial number turn out to be derived from small startup companies rather than from the laboratories of business enterprises. It is also supported by the "Fast Company's 2013" list of the world's 50 most innovative companies (Appendix 1), where we can clearly see the relative absence of large, established firms. Instead the list is dominated by the big technology winners of the past 20 years that have built their companies from small startups and made innovation the key corporative strategy (Apple, Google, Amazon, Samsung, Microsoft), and a lot of smaller, newer start-ups.

The key questions for the following chapters are: what is efficient to the way startups operate that has enabled their success in developing innovations, namely breakthrough ones? And why have some established organizations been able to replicate that kind of innovation when others have failed? We will review the barrier to innovation in established companies, analyze the enablers in

startups, in general, and in particular chosen firms, and after that will be able to get answers to the questions above.

3.1. Big Established Companies in Managing Innovations

Eventually, there is strong evidence that innovation can stimulate economic growth and profitability; however, there are strong indications that big companies cannot manage innovation properly. It happens with the variety of reasons, and most of them will be analyzed below in "barriers" chapter. Based on empirical data, we could clearly see, that of all companies in and out on the Fortune 500's top 50 during 1955-1995, only 5% were able to achieve sustained real growth of more than 6% over the entire period (Christensen, 2003). The other 95% reached a point where their growth simply stopped, to rates at or below the rate of growth of the gross national product, GNP. Christensen (2003) continues by saying: "Stalling is understandable, given our expectations that all growth markets become saturated and mature. What is scary is that of all these companies whose growth had stalled, only 4% were able to reignite their growth successfully even to a rate of 1% above the GNP growth. Once growth had stalled, in other words, it proved nearly impossible to restart it."

Established firms often fail in taking the lead in innovative breakthrough technologies, even though there is strong evidence that leadership in disruptive technologies creates enormous value (Christensen 2002, 2003). For example, the firms that led in launching disruptive products in the disc drive industry together logged a cumulative total of $ 62 billion dollars in revenue between 1976 and 1994. Those who followed into the market later, after it had been established, logged only $ 3.3 billions in total revenue.

Furthermore, Christensen (2002, 2003) states that findings consistently show that when established firms are confronted with disruptive technologies, they do not have trouble developing the requisite technology. Rather, disruptive projects stalled when it came to allocating scarce resources between competing product and technology development proposals within the company. Moreover, it does not stop here; even though entrants led in commercializing disruptive technologies, their development was often the work of engineers at established firms (Christensen 2002, 2003).

Berggren et al. (2005) also discuss established enterprises' innovation capabilities and concluded that the large companies' ability to innovate and grow has decreased as an effect of shortsightedness in R&D and business development. R&D is more and more focused on existing business areas and is primarily used for maintenance and improvements, rather than the development of new techniques, products and concepts. The priorities are getting shortsighted, as Chesbrough (2003) simply admits: "There is an apparent decline in the innovation capabilities of many leading companies."

This is also confirmed by the corporate world; Dundon (2002) announces only 25% of business leaders are pleased with their current innovation performance, which corresponds to the Boston Consulting Group (2005), which states one out of every two executives worldwide is unsatisfied with own return on innovation. Numerous dimensions are mentioned on what companies put forward as areas subject for improvement, for example (Dundon 2002, the Boston Consulting Group 2005, Tucker 2002):

- Fewer than 25% of executives believe they have mastered the art of deriving business value from innovation fully.
- 40% of companies feel weak in fostering an innovative culture.

- 50% of firms feel weak in leveraging suppliers for new ideas.
- 50% of companies assess themselves as "weak" in moving quickly from idea generation to the initial sale.
- Less than 50% closely track the financial returns from innovation.
- 67 % of all companies do not have formal processes for gathering ideas.

The Boston Consulting Group (2005) brings this to a head and concludes: "The unspoken truth seems to be that for a vast number of companies, innovation spending continues to rise, but it is generating neither enough profit nor competitive advantage."

3.2. Barriers to Innovation in Big Established Companies

A key challenge for many big organizations remains the adoption of such an organizational structure, which enables innovation and creativity, stimulates ability and possibility to respond in a flexible and timely manner to changes in the society, environment and consumption, as well as facilitates coordination and integration both internally, between subunits, and externally, with all key stakeholders.

Barriers to innovation could be defined as those factors (both external and internal) that make it difficult for a firm to innovate. There are varying opinions on why big companies cannot handle innovation correctly, and they can roughly be divided into two big categories: internal and external ones. External barriers appear mainly when the firm cannot get the technological information, external finance or skilled staff. Internal barriers are found when the company lacks internal funds and when it considers that the risks and costs of innovation are too high (Segarra, García & Teruel,

2008). These two main groups will be analysed more in detail below.

3. 2. 1. Internal barriers

1) People

…including staffing and selection, performance feedback and learning, and development

Many authors' opinions on issues related to innovation strategy and commitment of top management. Most authors agree that these questions are common causes of poor innovation management (Arthur D. Little 2005, Capgemini 1998, Christensen 2002, Kuczmarski 1996, Radjou 2004, Tucker 2002).

Bantel and Jackson's (1989) are taking a demographic approach to investigating the leadership characteristics that result in a tendency to innovate, rather than avoid new approaches to both technical (products, services, and systems) and administrative (human and organizational) innovation. Previous research in this domain approached top decision makers such as CEOs as individuals making decisions on their own. Bantel and Jackson's demographic approach focused on characteristics as variables of top management teams: "We assume this dominant coalition acts as a decision-making unit for the organization" (p. 107). The authors looked at the demographics of top decision-making teams in 199 banks to discover the elements of team composition that supported innovative activity. Innovations "were identified through reference to the state of the art in the industry" (p. 108).

"The demographic characteristics of top management teams [that] were examined [included]: average age, average tenure in the firm, education level, and heterogeneity with respect to age, tenure, educational background, and functional background. Also, the effects of bank size, location (state of operation), and team size

were assessed. Results indicate that more innovative banks are managed by more educated teams who are diverse with respect to their functional areas of expertise. These relationships remain significant when organizational size, group size, and location are controlled for" (p. 107).

Howell and Higgins (1990) take a different perspective on demographics, seeking empirical evidence to support the hypothesis of champions, individuals within an organization who take risks by introducing new ideas and innovative techniques to a group, process, or industry to promote their thoughts. They sought evidence that "personality characteristics, leadership behaviors, and influence tactics...affect the emergence of champions in organizations" (p. 318). Their study relied on previous literature in entrepreneurship, transformational leadership, and influence, as there is a perceived positive correlation between entrepreneurs and champions. Champions often inspire others, and therefore they are seen as leaders even though they do not have the hierarchical stature or title.

Howell and Higgins developed questionnaires and survey instruments that were completed by 25 matched pairs of perceived champions and non-champions, seeking responses concerning the personality characteristics, leadership behaviors, and influence tactics of champions of technological innovations. In sum, "champions exhibited higher risk taking and innovativeness, initiated more influence attempts, and used a greater variety of influence tactics than non-champions [and] showed that champions were significantly higher than non-champions on all paths in the model" (p. 317).

As the business environment becomes increasingly complex and competitive, finding leaders who can contribute positively to technological and business innovation— its initiation, evaluation,

and adoption—is an essential factor in productivity, competition, and survival.

There are also exists two basic organizational theory approaches to understanding the role that leaders play in effectuating a company's performance. Some hold that leaders and their abilities are environmentally determined (and therefore have relatively little ability to control organizational structure or reshape factors that support action), while others look at leaders as proactive decision makers who have a great deal of power over the direction of a firm. However, there can be found a middle position, which states, that organizational leaders as conduits that allow external influences into their firms, "thereby facilitating adaptation to the environment". These perspectives have shaped organizational behaviour research, resulting in yet another opposition of approaches. Bantel and Jackson (1989) divide the field into the "direct assessment approach," which "directly assess[es] the psychological attributes of decision-makers and examine[s] their relationship to outcomes," and the "demographic approach," which the authors view as being more practical, but in terms of statistical analysis, has the disadvantage that "characteristics do not co-vary perfectly with the psychological attributes of interest". These different approaches suggest differing hypotheses to study, with the psychological approach stressing "the role of cognitive resources in group problem solving," while the demographic approach suggests significant value on "the role of cohort effects in organization processes" (p. 108).

To sum up, we can conclude from the theoretical overview and practical cases, that choosing the right leaders to do the job is even more significant when it come to conducting innovation that in any other management issues.

2) Structures and processes

…. including connections, knowledge flow, reporting relationships, and organizational roles

The second group gathers many authors' arguments on an organizational environment and insufficient support systems. Both these issues have in common that most authors agree on that they are problem areas, but the opinions on how to solve them differ greatly (Capgemini 1998, Radjou 2004).

The focus of many books has been on organizational structure or innovation's impact on organizations. Books considering organizational structure have provided views on how different ways of organizing a firm have had different effects on innovation. Burns and Stalker (1966) considered how companies that had a more flexible organic structure were more effective at working with innovation. However, firms with a more mechanistic structure were more efficient once the innovation was integrated into the firm. Many people have suggested the placing of a 'firm inside a firm' to isolate the innovative from more mundane day-to-day routines. An excellent account of this technique is Kidder's (1981) consideration of the development of a new computer. Further insights into the question of the overall structure are addressed by Morgan (1986), who not only considers the mechanistic and organic structure but many other lenses through which an organization can be seen.

Based on those statements, we can conclude that once a big business finds the way of efficient solving customers' issues, organizational structures and processes urge to lead the company towards incremental and efficient operation. Managers often guide their employees from discovery something towards delivery existing, but more efficient. Employees are taught to seek efficiencies, leverage existing assets and distribution channels, and listen to their best customers.

Such practices and policies ensure that managers can concentrate significant earnings to the street and satisfy shareholders. However, they also limit the types and scale of innovation that can be pursued successfully within an organization.

Many business people conclude, that mature corporations are bad at innovation by proxy: all the pressures and processes that drive them toward a profitable, efficient growth seem to get into the way of performing the innovations that can actually change the business (HBR, "How big companies should innovate", 2012). In the old corporate world, activities were one way only. Firms would execute a value chain to deliver a high-quality product at a lower cost. Hence today, transactions are multi-channeled. Firms not only have to attract new customers, but also others that will enhance their platform.

One of the critical roles in big organizations plays resistance to change. Paradoxically, organizations and people are least likely to change when they are in the best position to do so. The impetus for change is rarely high enough to overcome the inertia of the status quo until people and organizations hit a crisis. Typically, change agents within an organization struggle to get the attention and resources for proactive change until the need to amend is critical. Unfortunately, this is often a less-than-ideal time for the change.

Charles Handy, the author of "The Age of Unreason", "Beyond Certainty" and numerous other books, is among the leading business thinkers who have argued that it's no longer possible to draw a straight line from the past to the present and into the future. Things change too fast and too unpredictable these days. Handy says success will come to "the ones who look to the future, not backward, who are certain only of uncertainty and who have the confidence and ability to think completely differently." Change is not gradual, however, it is constant and tumultuous.

Unfortunately, it is human nature to be resistant to changes, new waves, and unpredictable future. Big companies are no exception in this term. Until the old methodologies and ways of operating are efficient, it is always easier to do nothing than to face doing something new.

To conclude, we can say that out-dated structures, with complicated hierarchy, subordination and communication procedures are a significant disadvantage in the ways of big corporations to successful innovations.

3) Incentive Systems

… including goals, scorecards and metrics, values and behaviours, and compensation

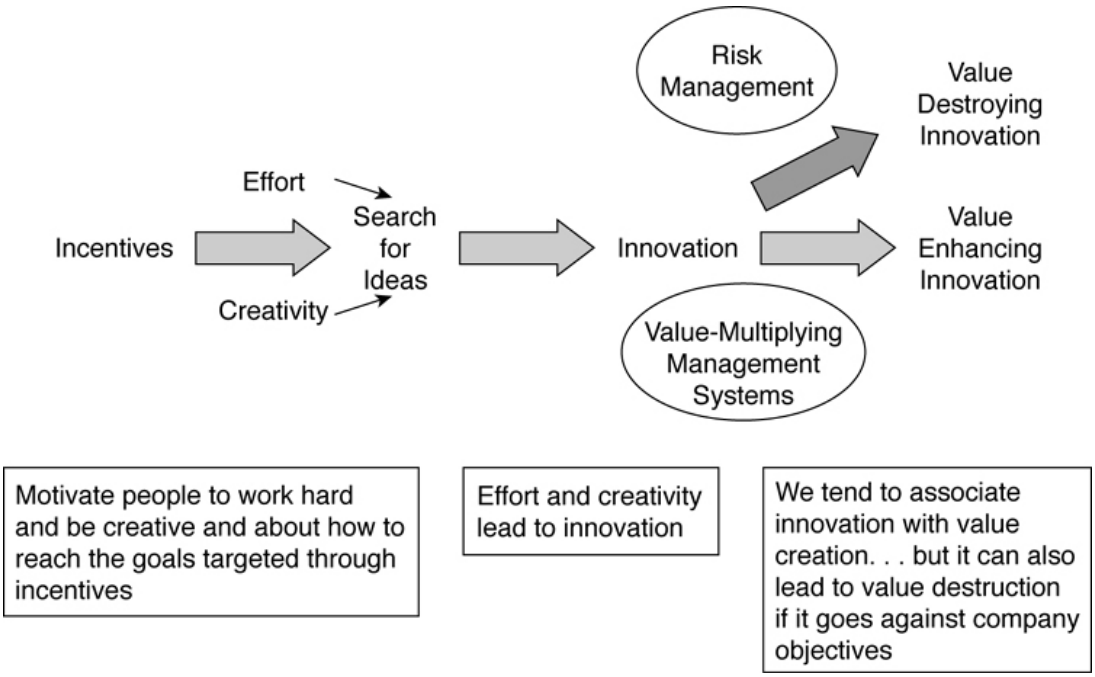
The problem of most innovation incentive systems in big companies is that they reward the wrong behaviour and provide disincentives for the right behaviour. In an effort to stimulate innovation, a company I worked for, Coca-Cola Ukraine, decided to reward each suggestion with a small amount of cash; not surprisingly, we received a lot of suggestions, but none was useful. Most of the arguments from scientists using incentives are based on this idea: poorly designed incentive systems are worse than nothing.

"An additional challenge with innovation incentive systems is their potential negative effect on intrinsic motivation. Intrinsic motivation is the internal drive that a person has to do something purely because he or she loves it" (Davila & Epstein, "How to Become Innovative", 2013). Furthermore, it is a factor in all innovations, especially in semi radical and radical innovations. The manager who led the team that developed the brain clips that did not react to magnetic fields did it because of the challenge of the project and his passion to create something new, not because of the potential economic rewards. Sometimes the most significant reward for performance is the act of doing the job itself.

However, before it could succeed, Procter and Gamble had to change incentives to reduce the "Not Invented Here" attitude that was pervasive inside the company. One of the more notable changes was to reward employees for identifying licensing opportunities. The program ultimately succeeded in making R&D more efficient, and in systematizing open innovation within the company. Still, critics claim the rate of breakthrough innovation falls short of the program's promises. The lower-than-expected number of breakthroughs, though, may be a result of those external ideas being executed more traditionally (Davila, Epstein, 2013).

Social psychology research as early as the 1950s found that external rewards could undermine intrinsic motivation. Research into intrinsic motivation in innovation has yielded similar results. A senior manager described it as such: "Research employees are often less excited about bonuses than about peer recognition." Extrinsic rewards can drive away intrinsic motivation. In this case, a reward system may have the effect of focusing product development managers' attention away from relevant dimensions: "Planning and rewarding for schedule attainment are ineffective ways of accelerating pace." (Davila, Epstein, 2013).

(Appendix 2, "Invective systems and influencing factors").



The motivation with money only if the assignments are fulfilled is not helping to explore creativity. It cannot make a job more exciting or interesting for an employee, and in some situations, it generates a negative perception because it is perceived as a bribe. It is important to realize that the genuine interest in the work is usually the intrinsic motivation for creativity. This interest about the possibility to do something exciting with new products, technology, tools is what drove Steve Jobs and Steve Wozniak to develop the first personal computer in their Homebrew Computer Club—and, definitely, to found Apple Computer.

For breakthrough innovation initiatives, recognition systems play a much larger role. In particular, managers participating in these projects need to feel rewarded for taking the risk even if the project was not successful. Alternatively, they must feel that they receive a fair share of the value generated from the project if it succeeds. Because effort, risk taking, and value generated from a project can be fairly judged only when the project is finished, incentive systems are suited for this task. Reward systems are better suited to this purpose.

Incentives provide a major impetus for behaviour change. Without measures and incentives, organizational antibodies are released that resist innovation and block organizational change. Incentives can also cement in place beneficial behaviour, creating a solid foundation for innovation.

3.2.2 External barriers

External barriers might be not that significant for established organizations, as internal ones, but nevertheless they might play a meaningful role in preventing a company from successful innovations.

Lawrence and Lorsch (1967) found that the greater the certainty and stability in the environment in which an organization operates (as defined by levels of competition, changes in product innovation, and the predictability of the supply and demand for inputs and outputs) the greater the formalization and rigidity of its organizational structure – that is, organizational structure is contingent upon the nature of its environment. In certain or stable environments, organizations have the opportunity to develop a highly formalized and rigid set of practises, routines, and structures, whilst in unstable and uncertain environments, organizations are forced continually to adapt, requiring a less formalized and more flexible structures. This theory implies that its environment, to the larger extent, determines an organizational structure and the way the organization can innovate.

The table below has summarized the results of such analysis on external barriers to innovation projects

(Appendix 3, "External risks of innovation projects").

External risks of innovation projects	Referred to...	Weighted Mean (St. Dev.)	Median
Demand risk	Uncertain demand for innovative goods or services	**6,71 (4,58)**	4,5
Innovation costs risk	Direct innovation costs too high	**6,40 (5,16)**	4
Market risk	Market dominated by established businesses	**5,78 (4,21)**	4
Economic risk	Excessive perceived economic risks	**5,62 (4,08)**	4
Information risk	Lack of information	5,59 (4,55)	4
Finance risk	Cost of finance	5,09 (3,30)	4
Competitive risk	Competitive pressure	4,87 (3,10)	4
Brand name risk	Brand name reputation	4,62 (4,52)	3,5
Trademark risk	Trademark or copyright problems	4,62 (3,90)	3
Extraordinary risk	Extraordinary situations	4,34 (3,33)	3,5
EU regulations	Need to meet EU regulations	3,87 (3,48)	2,5
National Government regulations	Need to meet national Government regulations	3,81 (3,55)	2,5

"Demand risk" along with "Innovation costs risk" lead the risks' list. In fact, being new and innovative, a product, service, method could very easily be not accepted by the targeted final users (Cierpicki, Wright and Sharp, 2000; Griffin, 1997) and face an uncertain demand. The innovation costs risk is revealed to be the second biggest external barrier to successful innovation projects. This could be evidenced even in large-scale projects like (1) the construction of the Opera House in Sydney, exceeded 94.8M Australian dollars of the planned budget, (2) the Airbus A380 – 1.77 billion over budget; and (3) the London Millennium Bridge had £8M over the initial budget.

At the bottom of the list indicating the lowest barriers to successful innovation projects, the surveyed firms have ranked the need to meet the local and national government regulations (Altin Kadareja, BCG, 2013).

In conclusion, the dominating external risks of innovation projects have been ("External Risks of Innovation Projects", Altin Kadareja, 2013):

- "Demand Risk – Uncertain demand for innovative goods or services";
- "Innovation Cost Risk – Direct innovation costs too high";
- "Market Risk – Market dominated by established businesses".

Figure X

To conclude, in this sub-chapter we took a closer look at how innovation systems work at big corporations, specifically, analysed and categorized the barriers, which established companies' meet on their way to successful breakthrough innovations. As in this work we are comparing innovation systems in different types of business (corporations and startups) and aiming to find ways to find promising transfers from startups to big companies, we mostly concentrated on the specific barriers and factors, which are more relevant for big and established business ventures. Also it is not possible to derive only "corporative" factors, and each case of innovation failure can have more than one reason, nevertheless, typical issues, which big corporations face with breakthroughs, are: wrong people for the job, lack of structural flexibility (i.e. resistance to change) and lack of motivation (multiple problems with inefficient incentive systems).

3.3. Startups in managing breakthrough innovations

Understanding the problem, described in above subchapter, and in order to make more concrete recommendations, based not only on the scientific approach to the described issues, but also on practical up-to-date business experience, in this chapter we will take a closer look at successful, innovative practices in startups, particularly in the areas, where big companies have problems, like people, structures and motivation. The main ideas are to be able to

outdraw some specific recommendations, ideas and concepts, which corporations can try to implement to increase the rate if success for innovations, after empirical and theoretical analysis. I will analyze three selected startup companies, which are relatively successful in the business and conduction innovations, in 3 chosen dimensions: people, structures and motivation.

Firstly, I would like to make a brief theoretical introduction into innovation in startups. Over the past years, as it was mentioned several times in literature overview and researchers, startup companies have been key players when it comes to breakthrough and radical innovation. New businesses have appeared out of nowhere, creating industries, new products, taking down venerable companies that had been working for decades, and creating industries that did not exist before. Amazon in retail distribution and Google in Internet search and many other services are two prominent examples of startups' creative destruction. These companies, each now employing thousands and earning billions, have excelled both at executing a winning business model and at creating and growing new markets.

However, from the other side, startup companies present an interesting challenge for innovation management. Eventually, a young company tries to be quite flexible in its procedures and conducting the improvements and changes required to coordinate it with innovative practices are not as complicated when compared to larger, more established in term of procedures in firms. From another point of view, startup companies can be high-risk and not enough finances, which are not helpful for innovation management assignments. Taking this into consideration startup issues, however, there are ways to get around the shortcomings and to use certain advantages in the implementation of innovative strategies.

In some ways, many startup companies are set up well for innovation management. Having a smaller company with fewer

employees often forces individuals to take on multiple roles and learn about tasks and procedures required for different departments. Startups can take advantage of working in blended roles since there are larger percentage of employees who are well informed about the needs of the company from a variety of different perspectives ("Innovation Management within a Startup Company", article, 2013). Having a mixed environment also prevents leading role becoming too regimented against the process and hierarchy. These structures tend to stifle creativity and suppress the overall innovation process management.

The main advantage that companies have run their relation to each business innovation project. Most reputable companies have to work hard to keep their entrepreneurial spirit, as it is invaluable in innovation management. This view gives startup company the opportunity to start solving the problem in a new and radical way, that was previously undiscovered, or to come up with ideas from many different points of view. Startups can devote more of their energy and time to find products and devices from the point of view of the consumer.

Another advantage of startups is that they have the ability to move and make decisions more quickly. The Lean Startup Approach (Appendix 4) exploits this concept with a methodology aimed at developing products to market rapidly and efficiently.

3.3.1 Comparative analysis of innovation systems in startups

Coming from generalizations to practical and particular examples, in this chapter I will present the empirical data gathered during interviews for the thesis project.

I will review the results of qualitative data analysis, i.e. interviews, with startups, and their relation to previous studies as well as the literature review. The results and the discussion are presented as a single interconnected chapter to benefit from the mixed method research approach and provide a broader and more in-depth understanding of the results and findings. Each interview with each startup will be presented in an individual sub-chapter with similar structure. Firstly, a brief background is given about the startup itself. Secondly, all the empirical data gathered from the interview is presented in four different areas. These areas are: 1) business & innovation strategy, 2) people, 3) structures and processes and 4) motivation. First part of a case study is showing the type of business of a startup, as well as it's strategy, namely regarding innovations, three areas of innovation process were chosen, as far as in this represents areas, where big companies particularly and mainly having problems. Eventually, after the research we will be able to highlight, what startups are doing differently and more efficiently regarding people selection and management, knowledge management, organizing the process of innovations, management technics, approaches and the way of thinking. Some of the knowledge and findings, I suppose, will not be transferable or appropriate for implementation in big companies, but some should be applicable and useful for further recommendations and adaptation.

Finally, the whole chapter is reflected upon, followed by the next chapter with promising transfers from startups logic to corporative one.

Purposes and process

I had conducted in-depth interviews with three startups, namely: sircular.rocks, fatfoogoo and izzly.

The in-depth interviews as the tool to build a case study were chosen, because various researchers and scientist proved their efficiency (f.e. Cowles &Edward Nelson, 2015; Gall, Gall, & Borg, 2003; Martin & Bridgmon, 2009; Shadish, Cook, & Campbell, 2002).

They were in each case conducted with one of the founders, who was involved in company management to the current time. It is of particular importance, that the interviewed representative was able to observe the development of the startup, its procedures and innovation projects at the different stages, has experience of both founding and managing. Because, as Merriam (2009) summarizes: "… qualitative researchers might be interested in uncovering the meaning of a phenomenon for those involved … [by] understanding how people interpret their experiences, how they construct their worlds, and what meaning they attribute to their experiences".

Furthermore, this three particular startup companies were chosen, as far as they are quite innovative and diversified in terms of experience, industries, innovation type, and can provide different useful information and ideas to the master thesis topic.

Data collection

The interviews were conducted personally (2) and via on-line questionnaire (1). All interviews were carried out with startup founders (or one of the founders). Prior to the interview respondents were informed about the purpose of the research, the need to tape-record (where possible) the interview and that the given information can be later on publically accessed. The interviews lasted between 30 and 50 minutes, and the recordings were complemented with notes taken during the interview and impressions, ideas and thoughts of the interviewer that arose from the interview. External data about the startups like websites,

interviews, etc., was also used. The full questionnaire can be found in **Appendix 5**.

Methods of data analysis

As it was mentioned earlier, all in-depth interviews were transcribed and manually coded. Although there were a lot of different questions, I decided not to concentrate on each answer and analyze it separately, but to group the information according to described above clusters and analyze it correspondently. Also to the in-depth interview, some internal company data (i.e. structures, sales, clients), as well as external resources (websites, publications, interview) were analyzed. Overall, my research is performed as a case study as the most appropriate research strategy, taking into considerations problematic and complexity of the master thesis topic.

As it mentioned in an article by Florian Kohlbacher, "The Use of Qualitative Content Analysis in Case Study Research" (2006), "case studies are widely used in organizational studies and across the social sciences, and there is some suggestion that the case study method is increasingly being used and with a growing confidence in the case study as a rigorous research strategy in its own right (cf. e.g. Hartley, 1994, p.208; Hartley, 2004, p.323)". Stake (2000) agrees, continuing that case studies have become "one of the most common ways to do qualitative inquiry," but at the same time concedes, that "they are neither new nor essentially qualitative" (p.435). In any case, quoting one of the most prominent experts in case study researchers, Robert K. Yin, we can say that "using case studies for research purposes remains one of the most challenging of all social science endeavours" (Yin, 2003a, p.1, original emphasis).

According to Yin (2003a, p.2) "the distinctive need for case studies arises out of the desire to understand complex social phenomena"

because "the case study method allows investigators to retain the holistic and meaningful characteristics of real-life events," such as organizational and managerial processes, for example. In fact, case studies seem to be the preferred strategy when "how or "why" questions are being posed, when the investigator has little control over events, and when the focus is on a contemporary phenomenon within some real-life context (Yin, 1981, p.59, 2003a, pp.2, 5-10).

Finally, Yin (2003a, pp.13-14) offers a more detailed and technical definition of case studies:

"A case study is an empirical inquiry that:

- investigates a contemporary phenomenon within its real-life context, especially when
- the boundaries between phenomenon and context are not clearly evident

The case study inquiry:

- copes with the technically distinctive situation in which there will be many more variables of interest than data points, and as one result
- relies on multiple sources of evidence, with data needing to converge in a triangulating fashion, and as another result
- benefits from the prior development of theoretical propositions to guide data collection and analysis".

Given this definition it might be significant to note that a case study is not a method but a research strategy (cf. e.g. Hartley, 2004; Titscher et al., 2000).

Case 1. sircular.rocks

About the company

The startup was founded in 2015 and based in Vienna, Austria. The team consists of 3 founders and several employees. The mission of

sircular.rocks is to create a whole new way to interact with innovative products – in terms of new products creation, usage, customer experience and distribution channels. They are at first creating innovative tech products, like electro-scooter, or aerodrums (2 already launched products), and afterwards involve users into the product's life cycle, analysing and giving feedback, i. e. strive to simplify the way to experience the things of tomorrow. The business model is as follows: the company tries to involve potential users into the products creation and improvements, create a community and after that distribute the products through the community. First users (which are mainly lead users for the category and opinion leader for their social circle) are getting the opportunity to test the product for free, give the feedback, and participate in the further product development. They are also tending to use the cumulative effect of social networking and growing trend of sharing. The company had now about 100 first customers and met first business goals relatively successful, i.e. received seed financing for developing new products and prototyping.

The strategy is disrupting the important edges of the conventional value chain for next-generation and durable lifestyle goods. Nowadays it is driven through centralized channels (advertising -> retail), with us it is driven by people with common interest.

People

As it can be clearly seen from the business model, people are the key driver of the business. People in the broad sense, are key drivers for the business model, specifically not only the founding team but also users, customers, partners. sircular.rocks declared from the very beginning open innovation process and fair competition, actively looking for producers, suppliers, and sharing their ideas on various conferences and events.

The motivation to drive innovations is two-sided. From the one side: founders, who are highly interested in high-tech, have some experience in the area of urban mobility, and have real drive about changing the existing state of order, and from the other side: community, lead-users, etc., people, who actively involved in product usage and innovation process at all stages. The founders believe, that when innovating, you should be very open and look anywhere for new ideas. Ask everyone around, investigate, and do not limit your imagination. Once you have an idea, you can move to looking for partners/suppliers. Nowadays the world is extremely interconnected, and it make no sense to be closed and try to do everything on your own. This belief actively implemented in their business – now they are asking people to vote regarding which product should appear next? Active involvement of partners and customers are necessary components of sircular.rocks success. Nevertheless, they involve into exactly innovation process only those people, who believe in a company and fully share the vision. It does not mean that they do not accept critics, but the critics should be presented and delivered only in a constructive and collaborative way, and only at the stage when it is required. Founders are fully engaged in the development of quite complicated projects, as they are quite new company with small team, but at the same time, they understand the limitations of their knowledge and try to rely more on other professionals in some specific things and issues. They believe, that for investor risk increases greatly with every innovation if the startup consists of one or two people and there is no motivated team behind, therefore, they are actively searching for reliable partners. If you can convince at least one person that the project has the potential, it will convince others.

Structures and Procedures

sircular.rocks has the relatively small innovations team; that is why processes and procedures are reduced in time as much as possible, very agile and efficient. They believe in modern communication and flat structures. Also, each of team members has his specific area of responsibility; they do not have an approval procedure or strict subordination. When you innovate and create, everyone should be able fast and easily contact everyone. For this reason they, on the contrast to many other small startups, have their "office space", where they come to work some pre-agreed hours. Working "shoulder to shoulder" helps to be on the same page and discuss all the issues immediately.

Moreover, they try to tackle the whole process – from idea generation to ideas implementation – as fast as possible, sharing each part of the innovation process with some external party like supplier, customer, investor, etc. First product and prototype were developed within one month. Founders manage to break down the process of inventing a product or service into small, repeatable tasks.

Although the team is small, team members, as it was mentioned, have they own “specialization areas”. The process of innovation and tracking ideas is usually three-fold. First, someone identifies a solution problem pair. Then the idea is bounced between core team members. Last, it is tried out, always with the intent to implement in smaller pieces (saving costs, gather feedback while doing so). It also depends on the bottleneck how the idea must go through. For some small hacks, like adding badges that users can earn by inviting new ones, it is easily done within a few hours internally. Involving external stakeholders is usually a bigger bottleneck. Introducing goodies require negotiations with partners that can take a long time and even only partially succeed.

Motivation and Incentives

For this particular startup it is very important to pick the right idea and to be sure, that is, firstly, and important idea, which can change and improve people's life (they are a team of dreamers and believers, inspired by visioners like Steve Jobs and Allen Mask), and, secondly, they have to be able to implement it. Furthermore, big motivation is readiness to take the take risks and the ability to not only learn from past experiences but also to correct the failures in the next project. The team is ready to failures and motivated to overcome the difficulties. Founders clearly see, what they want at the end of the project, they can explain it to the other team members, share the common vision and formerly move to the ultimate goal. Biggest motivation after all is the working innovative products and happy customers.

Case 2. fatfoogoo

(now subsidiary of a "Digital River")

About the company

fatfoogoo is the leading in-game commerce solution for monetizing online video games, casual games, virtual worlds and social networks and provides commerce ecosystem for the monetization of online games and virtual worlds via micro transactions. fatfoogoo enables the implementation of highly successful business models into games quickly and reliably through its comprehensive services platform and open architecture.

The fatfoogoo offering includes a comprehensive set of building blocks designed to process millions of daily transactions. It is designed to be embedded in online games and virtual worlds and is ready for global deployment and operation. Operationally, commercially and legally fatfoogoo has vast experience through testing the system with 170.000+ users.

The company was created in 2009 and after several years of successful operations was sold to Digital River Corporation, now operating as an independent branch under the corporative umbrella. The team consists of 15 full-time employees and founders. The experience of the founder particularly interesting, because he can compare the innovation process as it was at the startup stage and now being a part of the mature global corporation.

People

When the startup was founded, it consisted of quite different people in terms of experiences, areas of expertise and responsibilities. They believed that it was one of the critical reasons of their success. For example, one of the founders knew nothing about innovation process, technology of market, but he had an essential and tight network in the particular business areas, that actually helped to find both customers and financing for the further development and innovations. They believe, that it makes much sense to have a very diversified team, but with common understanding of goals.

During this year, fatfoogoo performed implemented several radical and incremental innovations. When they chose people to work with in innovative projects, it is very important to pick result-driven, open and "out of the box" thinkers. They prefer to keep their team rather small, but very energetic and efficient. They usually do not conduct a standard "job interview" fit the new position, they rather prefer to have a "case-method" with non-standard assignments, as well as "training day" within the team. Their experience shows that the main thing is a team itself and its communication.

The regular job and incremental improvements can be done by anyone in the company, but people participating in innovative products development are the ones who are motivated. They never

appoint people as "responsible for innovation". People should be self-driven, and self-starters, deeply interested in the work are and curious about the overall business processes. Based on the experience, the efficient process of innovation looks like this: at the beginning of each project there is should be a leader, who selects several more team members with important knowledge and competencies needed to achieve the goal. Then t he task of a strong leader is to motivate, engage and lead the team through all the stages of an innovation process, specifically the most difficult ones.

Structures and Procedures

At the beginning, when the company was just a small startup, it was very easy to keep everything tidy and simple. Everybody new, what is their role and what they handle. However, when they were integrated into the big corporation, they had to adapt and increase the formality of the communication and the complexity of the processes. For example, previously the process of innovation (new software) took the 2-3 month, now it takes up to 5 months, because of procedures. They call it an obvious disadvantage. From another perspective, some formalization and the umbrella of a big corporation decreased the risk of failure, lack of trustworthy and took the financial pressure off their shoulders.

Nevertheless, they are still operating agile and try to improve the overall processes in the corporation, for example, with the help of processes automation. It was also an innovative project – to develop specific software for processes optimization.

Moreover, they keep innovation team out of the routine responsibilities or reduce them to the maximum. Founders and managers solve most of the administrative issues themselves, giving the employees opportunities to concentrate mainly on creation and invention part. Being a part of the bigger company is

good, because as it mentioned, it takes away a lot of stress, but from the other side they found a model inside the company, when they can operate like "corporative startup".

Motivation and Incentives

Although now the team does not have problems with financing, they still prefer not to rely on financial motivation, when it comes to the innovation part. That is why the remuneration systems consist of 2 parts: salary and bonus. There are also incentives for those, who are bringing innovative ideas, as well as suggest significant improvements to projects and processes.

Financial success is often too abstract to motivate the person on a daily basis. Moreover, the slightest reduction of projected income can demotivate employees heavily if they are oriented on money only. Of course, team members should be rewarded adequately, but bigger remuneration, specifically salary, will not provide higher success rate in innovations. Furthermore, it is not enough just to select right people for the innovation project, you need to motivate them to work and to create so-called "appropriability regime", environment, environment, microsystem, tools, etc. It depends mostly on the project type and team specialization, and team leader should be in continuous contact with team members and collect their feedback.

The key motivating factors of the team members are career growth, professional development, and possibility to develop something new. For some employees, it is important to get some freedom in terms of schedules, timing, working hours. For others, it is important to be involved into different aspects of the project, to be able to learn and grow. It is important to identify correctly the needs and try to satisfy them. However, overall tasks of the innovation team should be challenging, inspiring, and motivating for

them. Otherwise, people are losing interest to their work, and the whole project would collapse.

Moreover, it is important for managers do not forget that people would like to see the assessment and evaluation of their contribution to the overall success. fatfoogoo tries to celebrate each achievement of the team and point out each outstanding result.

Case 3. Izzly

About the company

Izzly is two-years-old startup founded by two co-founders from Kyiv, Ukraine. The service allows users to search for rental properties or houses that are on sale using their voice and natural language.

It makes money by sharing commissions with real estate agents for each closed deal. To stay afloat, the project need s to have at least 500 deals a month.

Izzly's team is currently working on final version of the engine, which will use third-party voice recognition software and Izzly's own algorithms to connect people looking to rent a flat or a house with the best offers. It is available on both Android and IOS, as well as on desktops as a web application. The team entered the public beta stage a year ago, starting with users in Arizona and then gradually expand into the other states. They are now receiving most of their profits from the US market but plan to expand to Europe with 17 other language adaptations.

People

Being friends for a long time, founders point out, that it make sense to do a business with a friend or somebody whom you believe, When it comes to innovation, it is very importation to have trust, feel real support and 100% of believing in the project's success.

Two founders always make a collaborative decision, specifically when it comes to innovations, moreover, they say customer focus is very important, and customers (as well as users) have a right to vote. The idea of the current startup came from the customers. For example, having the issue of a hard to circulate item resulted in the idea to couple possession of the item with special goodies, implement a notification to interested people when renting time expires and many more. User problems such as logging a takeover twice resulted in the idea to block that but instead deliver info only relevant to them.

From the other side, it is important not to "overload" the team with extra people and too many options. That is why they do not believe in big diversified innovation teams – it is very easy to be lost in the discussion without common understanding and actual moving to their goals.

The most difficult to find not only good professionals but also people with the potential, who will be able to grow and develop with the company. Because it also often happens, that a person, who delivered an outstanding result once and had a brilliant idea, did not manage to repeat it, or too much concentrated on that one particular idea.

Structures and Procedures

They do try to their money efforts, money, time, and resources into making the right system work, rather trying to fix already broken and wrong systems. When they start innovation project, they nevertheless plan it very precisely and seriously, anticipating some time to possible failures and corrections. Lot of startups making mistake, either not planning the process of innovation, perceiving it only like creativity (it is about creativity as well, but not only about that), or overcomplicating planning process with too much details and unrealistic goals.

It is not difficult to conclude that the development of the innovative product is one of the most important parts in the life of a startup. They believe success is largely dependent on how well and timely planned work is performed. To reduce the time and have a bit of hands-free, they outsource some work to the contractor. However, in the end it was the wrong decision. They got a lot of troubles with the quality, checking and reworking already done. Therefore they first of all learned to accept the possibility that something may go wrong and second of all that at the early development stages it is better for a project to find additional internal resources to the team than to rely on the contractor.

Motivation and Incentives

When you are developing new products, industries, and projects – it is not always easy, and success comes not from the first day. So it is very important to stay motivated and appreciate each small milestone, which move you closer to you goal – each the sale you closed, the problem you finally solved, the milestone you met, the new employee that is so eager and excited about what you are creating. Everyone in innovations team should have at least one person who is a total champion for their cause and love what they are doing. Don't go to them for idea validation, strategy or any business advice. Progress can be so slow, especially when you are bootstrapping. Startup - is, above all, difficult. You have to be prepared for the fact that a long time will be difficult. We must be prepared for criticism and failure. The latter will be much, but it does not mean that nothing happens. All at once will not work, and that is fine. All will be possible if there is a discipline and a desire to be successful. Today the idea of the project is not so important, important implementation, good, strong team and, once again, the discipline.

They understand, that start-ups are often a risk-reward scenario, and employees are aware that there is less of a safety, support system, and stability. As an owner, manager, we may have to do whatever is needed to succeed and to be ready to overcome anything, but the employees not always ready for that. The team can be sometimes demotivated. So the job of the leader is to keep that excitement high even when things are not going well.

4 PROMISING TRANSFERS FROM STARTUP INNOVATION LOGIC TO ESTABLISHED ORGANISATIONS

In this chapter I would like to point out several important findings, which can be outlined from all of the above chapters: literature overview, analysis of the existing barriers to innovation in big companies, and in-depth interviews with startups. However, theoretical part of the work and some external sources, as well as my personal work experience, will be taken into consideration as well. These are the ideas, which could be considered as useful for those big companies, which would like to learn from startups and newly established ventures in "conducting innovation" dimension.

Taking into consideration the broadness of the topic and uniqueness of each situation for each specific company or projects, recommendations would not be done in a formal of "guide to action", but rather as a concept and possible strategy. So, each chapter consists of the "concept" part, and to make it anyway more useful, of the list of "possible practical implementations".

Innovation researcher John Kao states in his works that "incumbents" can enjoy the best of both worlds: "They could enjoy the brand, access to distribution and capital, and economies of scale of a big company, while also enjoying the growth and agility of a startup that springs from a venture's need to experiment and learn with very limited resources." (Kao, 1997).

Learning 1: People are essential for innovations

Concept. Each of the startup founders pointed out that people are the "heart" of any innovation. They suggested keeping the "innovations team" relatively small and very focused on what they

do, rather than on procedures and rules. Companies should try to make them very involved, give an opportunity to implement the developed idea.

As we can see from the research, big companies should empower people to have more ownership. Also, large organizations face another problem when it comes to people involved into the innovation process. Most of them are not used to cross-functional collaboration, in term of a project with common goals . This clearly shows that an innovation can not be transferred very well well from the imagination of top management into the real life and business practices and can not be so easily implemented as an idea. However, since none of the departments feels really integrated into the innovation process, they lack the convinced motivation "and cross-functional empathy", which is crucial to make the project work. This is a clear and important contrast to startup teams that usually perform nearby with each other — finding, evaluating and solving problems and issues from different perspectives.

No matter how big a company is, the employees there still need motivation and still need to treat work to some extend as fun, when it comes to innovations. Company culture is as essential to a large corporation as it is in a three-person startup because no matter what is happening, people do need to be motivated every day and tagged to change the world and deliver their product or service to passionate customers.

In the big company, with lots of goals and procedures, i t is also an obvious situation that every innovation needs the support of a top manager to be implemented. Initially, this manager person may be a middle manager who has the decision rights, criteria, and risk behavior to support the early stages of development. Also, the manager must have sufficient resources to fund ideas that have some potential. A lean organization may be good at incremental innovation, but it may fail in radical innovation where it needs more

experimentation and risk taking. Finally, the manager has to be willing to run the risk associated with innovation—the risk of investing resources in a project that may have no returns or payback in the future.

Practical applications.

Starting with very obvious – each innovation process in a big organization should have powerful "sponsor", who will be pushing and promoting and sometimes motivating the team. In terms of the team member, there should be no "random people", innovation does not work as a regular cross-team project. All team member should be specifically pre-selected and have a common vision – that is why it makes sense in big organizations to allocate specific team, which will be separated in time and location, but still incorporated into organizational structure. Most probably the team will be more efficient if it will consist not only of company employees but also from some externals.

Learning 2: Innovation as a Strategy

Concept. The CEO needs to create the culture, organization, and management systems to allow that kind of midlevel support to happen.

More companies have seen their fortunes soar because they kept reinforcing a winning business model that had lost its edge than because they took too many risks. Another aspect of the startup environment that established companies are adopting is risk management. A portfolio approach to managing innovation efforts—balancing incremental and breakthrough innovation — takes advantage of company size to lower overall risk. Some organizations are taking a tip from venture capitalists, embracing the idea that while breakthrough innovation requires both skills and vision, it is also a numbers game. The risk associated with working

toward strategic discoveries requires investing in several projects to increase the chance of winning as a portfolio.

In addition to risk management, openness, and learning quickly and cheaply, another important lesson from successful startups is the benefit of looking at innovation not as a single task but as various activities that must be combined. Innovation processes have been depicted in different ways, but they always include divergence-convergence stages. Divergence stages encourage thinking outside of the box, challenging assumptions, and exploring wild ideas. Convergence stages focus on synthesizing the outcomes of divergence stages.

In general startups, as well as in the 3 selected for the interviews, diversity mixed with passion, constant exchange, freedom to fail, and easy networking, ideas move quickly, allowing people and organizations to combine them and spot new opportunities. Having a great number and variety of resources in a relatively small area makes a fertile ecosystem for developing breakthrough innovations.

Practical applications.

It was mentioned by all startup founders that they do not see innovation as a separate part of tasks - they see innovation as the only way for their business survival. It is no doubt that for establishes organization such an approach would not work because they have many different goals, obligation, and shareholders. Despite that, top-management should show the commitment to innovation strategy by internal and external communication, by organizing people and processes and implement specific motivation and incentives (not only money, as it was widely discussed). It is also often the question of politics and power in big organizations, Therefore, a CEO or general manager, depending on the magnitude of the entrepreneurial business, must oversee directly both the core and the entrepreneurial units. Otherwise, the political clouts of the

managers who run the core will move out the less powerful startup unit.

Learning 3: Acceptance of failure possibility

Concept. As all founders mentioned it, companies need to accept the possibility of failure in innovation. That what big corporation tend not to anticipate, as they are used to achieving goals with any means. Startups do not step into the new business to lower or minimize risks. Instead, innovation happens when they take risks.

An important issue for big and tiny companies is that top management, from the CEO and down, has to accept possibility of failure and be able to discuss with people who are trying to do invent something innovative and say, 'It's normal that you can fail. What did you do, what did not work and what are our general lessons learned?' Then after that time of fair evaluation and ref lection everyone must proceed.

With the promotion of the culture of acceptance, employees become more engaged and passionate about performing their duties without extra pressure, and they will be convinced, that their ideas are successful no matter the level of risk involved.

Practical applications.

Failure is an inseparable part of successful breakthrough innovation. And it is much better and take a lot of pressure off, it this possibility to fail is planned. Big companies have in this great area advantage comparing to startups – they have enough resources for a "plan B" if the essential idea would not work. It is also important, that the management communicates that possibility and provides clear guidelines for the innovation team, how they far they are ready to proceed in case of failure or event failures, and how many resources are available.

Learning 4: Continuous search for new ideas

Concept. It is not that easy to accept, that a lot of people within the business and social networks – from employees to suppliers, partners, and customers – can contribute great ideas on how to improve the innovation management and business in general. It was very much underlined and used by sircular.rocks founders. Some ideas may be not appropriate and totally out of the scope, but others will be fruitful and can work. When the company tries to coordinate innovations with others, with customers and prospects, it can bring new senses of knowledge to the company itself and new possibilities for the customer. Through collaborative innovation, everyone learns and benefits.

The first characteristic of successful startups that some established companies have adopted is dropping the "Not Invented Here" syndrome in favour of an orientation closer to "look for ideas everywhere" - recognizing the value of copying and combining, as well as acquiring tools that fit the innovation ecosystem. This trend has crystallized in the concept of open innovation, in which established companies benefit from leveraging not only the insights of their employees but also those of the outside world. Most large companies have subscribed to this idea, although some "organizational antibodies"—organizational attitudes and actions that dismiss efforts that do not directly sustain existing strategies—have occasionally delayed its adoption.

Established companies now understand that innovation, rather than being a secretive activity relegated to the R&D department, includes copying and combining ideas from both within and outside the organization. Another initiative was to make innovation a structured process — not so much that innovation was restricted, but enough that it could be managed.

A breakthrough innovation in established organizations balances internal resources and open networks, taking advantage of their

suite of global assets. These organizations combine tangible resources such as capital and access to suppliers and distribution channels with intangible ones such as brands, relationships, knowledge, and management. Having recognizable brands provides credibility and clout for customers and partners, and can help lower their aversion to trying new products and services. Global supply chains provide almost instant access to very large markets. Established companies also have access to a vast number of networks, bringing together a potentially powerful combination of capabilities. The ability to manage and relate these networks is a significant competitive advantage.

Practical applications.

Big corporation is often too close and too much concentrated on what they are doing. There are several ways to become more "open-minded". First, to foster external collaborations with Universities, research centres, professional organizations, in other words with anybody, who could have sophisticated knowledge regarding the topic. Also, they could use lead users and interaction with customers more wide concept, making such an interaction a part of routine processes. Suppliers and partners (distribution, sales, and even competitors) can also contribute into innovation activities and projects.

Learning 5: Despite being big, stay small and agile

Concept. As hard as it may seem, but as we see from the variety of examples, it is essential for efficient innovation. Furthermore, big radical innovations should not be in any case done with the high risks and huge investments from the very beginning. Startup culture is well-known for its synergy of energy and fast productivity. Successful startups succeed by strong leaders and involving fewer people in decision-making processes, but really important and useful people. One lesson large companies can learn

from startups is how to limit bureaucracy, exclude or excessive approvers. This would help larger companies to create smaller teams that make faster decisions in general.

Resources will be tighter. Some of the best people will have moved on out of frustration. Leading innovation requires a desire to work with – and to harness – the powers of change.

Moving from the concept of planning as a blueprint for execution to planning as a discovery path is another change to the innovation approach that established companies gleaned from startups. Creating a startup based on a breakthrough idea is about planning to discover and better understand how a business model will work. The discovery process consists of experimenting to resolve uncertainties and learning as much as possible for a small investment of time and resources.

When uncertainty is high, and failure is likely, the objective is to move as quickly and as cheaply through experiments as possible, with the results of every experiment informing the design of the next.

Operating under the idea of planning as the discovery rather than the idea of planning as execution runs counter to the largely incremental philosophy of business units. However, for breakthrough innovation to happen, it needs to be nurtured and protected from the short-term demands of business units. Solutions often require creating separate structures in which innovations can grow. Sometimes business unit managers can develop a culture in which initial steps concerning new ideas can be taken below the radar screen of short-term forces. The pressures of business unit goals make this feat hard to achieve.

Strategic discoveries need organizations adapted to a unique balance between discovery and execution. Tilting the equilibrium one way or another will lower the chances of discovery being successfully brought to market.

Without transitioning into a discovery mode, business units may still successfully generate ideas but manage them as incremental. The planning that goes into incremental processes is about predicting the future, and the opportunities that might have started with the potential for the breakthrough are transformed into incremental innovations.

Practical applications.

Probably, it is the most obvious recommendation, hence, the most difficult to follow. There several technics and recommendations, how to stay agile and small, when you are already big. Big companies can use one of three following organizational approaches, to drive innovations and stimulate agility and flexibility. The first approach is to create new divisions responsible for creating innovations with distinct strategic intent, culture, and performance measures. A second approach could be to make innovation a small part of everyone's job — and to provide a strategic architecture to encourage frugal experimentation. The third approach is to create an internal capability that helps the core businesses to apply the start-ups' new business development strengths. Summing up, it is also about the strategy of the company, focus and desire of the CEO to "act like startup", readiness to be more open, give more "ownership" to innovation leaders, and revisit, update and eliminate processes that inhibit employees from getting more things done.

To conclude, established companies could be the as great source of high-growth innovation as newly established, agile ones. They can be efficient in conducting breakthrough products and services, and they are uniquely positioned to create and redefine new products, new markets, and new industries.

5 CONCLUSIONS

In the **first introductory chapter** we are getting acquainted with key problematic, topic relevance, definitions and terminology. It

Thus, the **second chapter** deals with the innovation as a key driver of successful business growth of nowadays. Furthermore, we are briefly review the typology of innovations according to different functions and dimensions, specifically entrepreneurial breakthroughs and corporative incremental as the two opposites on the spectrum. The former is more often appears as the result of the activities of startups, and the latter is more common for big established organizations. Numerous scientific studies, as well as researches and business surveys prove, that breakthrough innovation is essential part of a business strategy. Yet, a lot of companies are dissatisfied with the way they manage those types of innovations. Innovation management and the 'right' choice and combination of corresponding methods are important success factors to successfully translate ideas into products and monetary success. Hence, the **third chapter** is about innovation management in big established companies, and typical barriers, which appear on their way. In this chapter we also have empirical part, 3 case studies, namely interviews with startups, in which we analyse 3 dimensions of the innovation management: people, structures and motivation.

Therefore, in the **fourth chapter** is based on the theoretical overview and empirical research. Through these research results, corresponding conclusions can be drawn how to adapt startup technics and ideas to big corporations practises in order to improve the way they innovate.

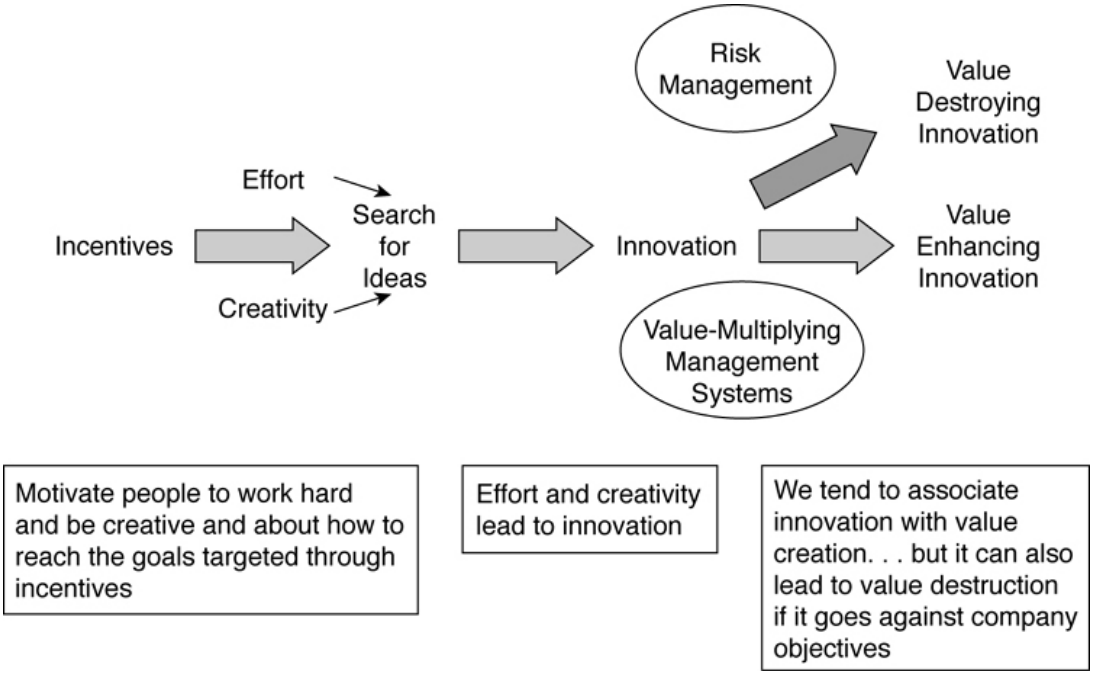
LIST OF APPENDIXES

APPENDIX 1

"Fast Company's 2014" list of the world's 50 most innovative companies

APPENDIX 2

"Invective systems and influencing factors"



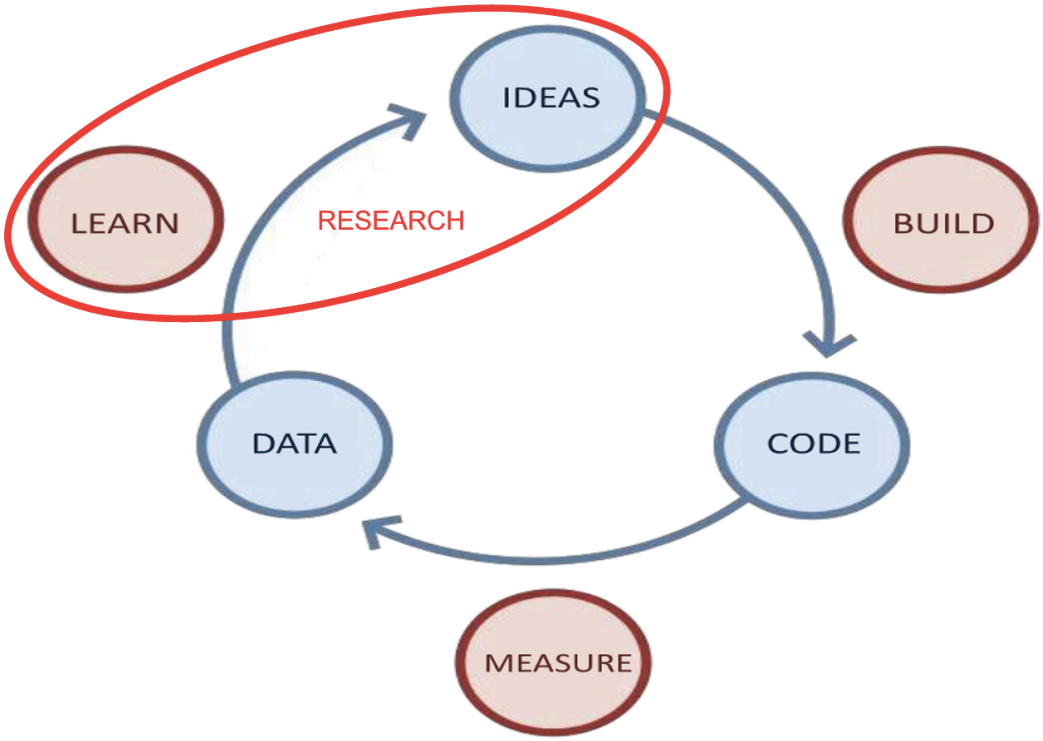
APPENDIX 3

"External risks of innovation projects"

External risks of innovation projects	Referred to...	Weighted Mean (St. Dev.)	Median
Demand risk	Uncertain demand for innovative goods or services	**6,71 (4,58)**	4,5
Innovation costs risk	Direct innovation costs too high	**6,40 (5,16)**	4
Market risk	Market dominated by established businesses	**5,78 (4,21)**	4
Economic risk	Excessive perceived economic risks	**5,62 (4,08)**	4
Information risk	Lack of information	5,59 (4,55)	4
Finance risk	Cost of finance	5,09 (3,30)	4
Competitive risk	Competitive pressure	4,87 (3,10)	4
Brand name risk	Brand name reputation	4,62 (4,52)	3,5
Trademark risk	Trademark or copyright problems	4,62 (3,90)	3
Extraordinary risk	Extraordinary situations	4,34 (3,33)	3,5
EU regulations	Need to meet EU regulations	3,87 (3,48)	2,5
National Government regulations	Need to meet national Government regulations	3,81 (3,55)	2,5

APPENDIX 4

"The Lean Startup Approach"



APPENDIX 5

Questionnaire "Startups Innovations Management"

1. Do you consider you startup as innovative? If yes, why?
2. What are companies' ingredients for success in innovations?
3. What are you doing to improve innovation performance?
4. What type of innovation does your organization support best?
5. Do you have strategy and vision for innovations management?
6. If yes, than for which types of innovations you are focusing on: process, product, and business model…?
7. In your team, do you have a person, specifically responsible for innovations?
8. Who is making final decisions regarding innovations implementation or further development?
9. How the "process of innovations" looks?
10. How do you select and evaluate new ideas, useful for your business development?
11. How do you select people, who are involved and responsible of innovation projects?
12. How is the innovation team structured?
13. How much time does it takes for you to implement new ideas?
14. Which stages your innovation projects came through before they are implemented?
15. How do you motivate and incentivize your team?
16. Which difficulties you face in terms of motivation?
17. How do you manage failures in innovations?
18. What do you lack at this stage of business development, to develop and implement innovations more successfully?

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