MSc in Innovation Management

How do established Icelandic companies approach innovation?

September 2019

Name of student: Edda Björk Bolladóttir
Kennitala: 161193-2329
Supervisor: Hallur Pór Sigurðarson
Declaration of Research Work Integrity

This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature of any degree. This thesis is the result of my own investigations, except where otherwise stated. Other sources are acknowledged by giving explicit references. A bibliography is appended.

By signing the present document, I confirm and agree that I have read RU’s ethics code of conduct and fully understand the consequences of violating these rules in regards of my thesis.

........................................................................................................................................................................
Date and place Kennitala Signature
Abstract

This study aims to examine how established Icelandic companies approach innovation with respect to this study's conceptual framework. The conceptual framework is a modified one, as it came to being by the merger of two frameworks, Davila's & Epstein's views on activities of successful Startups, and Miller's conceptualization of entrepreneurial orientation. It includes the following themes: Inspiration, innovativeness, risk-taking, proactiveness, and learning. Innovation and entrepreneurship have in recent years been widely covered in scientific research, although little is known about innovation practices in Icelandic established companies. However, it has been argued that companies need to innovate in order to survive, as technology and markets are changing at a more rapid rate than ever before. To reach the goal of this study, a deductive qualitative research method of multiple-case studies was undertaken in collaboration with Kompás. A semi-structured interview guide, including 27 questions, was created in line with the conceptual framework along with two general themes. Participating companies were nine, ranging from being 5-50 years old, and having 30-380 employees, where one employee from each participating company was interviewed. The findings indicate that all nine participating companies are, to some extent, entrepreneurially oriented, and they exploit two selected activities of successful Startups. Accordingly, all participating companies' innovation approaches take on different forms in this study's conceptual framework dimensions, although, the majority of the participating companies show similarities in three factors that could be improved. They are having unsystematic ways when it comes to matching employees and projects, lack giving employees recognition for successful ideas or creative contributions, and possessing inadequate resources for innovation/product development.

**Keywords:** Innovation, Entrepreneurship, Corporate entrepreneurship, Entrepreneurial orientation.
Acknowledgements

I think it is important to write about a topic the author finds interesting and can truthfully say that I managed to find my kind of topic. My interest in innovation activities has been increasing throughout my academic and working years. As a result of my strong enthusiasm and curiosity in the field of this study, I decided to pursue the current research, which has been a great experience. Several individuals played an important role in helping me make a reality of this study. First of all, I want to thank my supervisor, Hallur Þór Sigurðarson, who accepted to guide me through this journey. He gave me invaluable insights, along with highly beneficial guidance. Secondly, my collaborator, Björgvin Filippusson from Kompás, deserves gratitude for his connections and creative mind. Lastly, I would like to thank all the individuals that devoted their time to this study and accepted to be interviewed. Having the opportunity to have a great supervisor and a collaborator, among the chance to interview these individuals will not be taken for granted. I can only say that I am eternally grateful for all the received help.
# Table of Contents

Abstract ......................................................................................................................... 2

1. Introduction ................................................................................................................ 6
   1.1 The research question ......................................................................................... 8

2. Literature review ......................................................................................................... 9
   2.1 Innovation .......................................................................................................... 10
   2.2 Entrepreneurship ............................................................................................... 11
   2.3 Corporate entrepreneurship (CE) ..................................................................... 13
       2.3.1 Entrepreneurial Intensity (EI) ................................................................. 14
   2.4 Entrepreneurial orientation (EO) ..................................................................... 15
   2.5 Managing for creativity and innovation ............................................................ 16
   2.6 Dimensions of the conceptual framework ....................................................... 18
       2.6.1 Selected activities of successful Startups ................................................. 19
       2.6.2 Three dimensions of entrepreneurial orientation .................................... 22

3. Conceptual framework ............................................................................................... 25
   3.1 Framework A – Activities of successful Startups ............................................. 25
   3.2 Framework B – Three dimensions of entrepreneurial orientation .................. 26
   3.3 Framework C - The study’s conceptual framework ......................................... 27

4. Methodology ............................................................................................................... 29
   4.1 Research method ............................................................................................... 29
   4.2 Company selection ............................................................................................ 31
   4.3 Participating companies and interviewees ....................................................... 32
       4.3.1 Arctic Trucks – Emil Grímsson ................................................................. 33
       4.3.2 Lýsi – Hildiggunnur Ægisdóttir ................................................................. 34
       4.3.3 Skaginn 3X – Ingólfur Árnason ................................................................. 35
       4.3.4 MS – Björn S. Gunnarsson .................................................................... 35
       4.3.5 SS – Hafþór Úlfarsson .......................................................................... 36
       4.3.6 Genís – Hilmar Bragi Janusson ................................................................. 37
       4.3.7 Ölgerðin – Gunnar B. Sigurgeirsson ......................................................... 37
       4.3.8 Kjóris – Guðrún Hafsteinsdóttir ............................................................... 38
       4.3.9 Kassagerðin – Kristján Geir Gunnarsson ................................................. 39
   4.4 Discussion on the participating companies ....................................................... 40
   4.5 Data collection .................................................................................................... 41

5. Results ....................................................................................................................... 43
   5.1 Inspiration .......................................................................................................... 43
   5.2 Innovativeness .................................................................................................... 52
   5.3 Risk-taking ......................................................................................................... 58
   5.4 Proactiveness ...................................................................................................... 64
   5.5 Learning ................................................................................................................ 70
   5.6 Managerial implications .................................................................................... 75

6. Discussion .................................................................................................................... 80
   6.1 Overview of results ........................................................................................... 80
   6.2 Managerial implications .................................................................................... 85
   6.3 Limitations .......................................................................................................... 86

7. Conclusion and recommendations ............................................................................. 87

References ..................................................................................................................... 89

Appendices .................................................................................................................... 100
   Appendix, A - Semi-structured interview guide ..................................................... 100
   Appendix, B - Interview request email ................................................................. 102
Table of figures

Figure 1 - Framework A (Davila & Epstein, 2014) ........................................... 25
Figure 2 - Framework B (Miller, 1983) .......................................................... 27
Figure 3 - Framework C ..................................................................................... 28

List of tables

Table 1 - Overview of sample............................................................................. 32
Table 2 - Overview of participating companies and interviewees ...................... 33
Table 3 - Overview of results from the inspiration dimension............................... 51
Table 4 - Overview of results from the innovativeness dimension......................... 57
Table 5 - Overview of results from the risk-taking dimension.............................. 63
Table 6 - Overview of results from the proactiveness dimension......................... 69
Table 7 - Overview of results from the learning dimension .................................. 74
Table 8 - Overview of results from the managerial implications theme .................. 79
1. Introduction

Companies that continually bring new products and services to the market, along with new solutions, have become quite the focus of the business world as well as academics. Google, Amazon, and Tesla are, of course, innovation giants and companies in their category tend to be most apparent. But Iceland has its own giants, such as Marel, a multi-national food processing company and Óssur, a leading prosthetics developer. It seems though that Icelandic companies lag behind their foreign counterparts. Since 2017, Iceland has fallen seven places on the Global Innovation Index (GII), ranking the innovation performance of nations and economies around the world (Cornell University, 2017; Cornell University, 2019). These results are mainly due to weaknesses in the innovation environment in Iceland, such as a lack of tax incentives and growth capital for companies (Samtök Iðnaðarins, n.d.). However, there should be no less opportunity for innovation in Iceland than in foreign markets. Innovation is especially important for a small economy like Iceland. More innovation would boost growth and value creations in, e.g., exports, processes, and production. As technology, competition, and markets are changing at a more rapid rate than ever before, it has led to the creation of a completely different platform, in the way business is conducted (Friedman, 2005). In fact, companies have to innovate in order to survive. However, many established companies with a history of stable operations have experienced difficulties with product innovation (Dougherty & Hardy, 1996). Indeed, "the challenge for executives is to build congruent organizations both for today's work and tomorrow's innovation" (Tushman & Nadler, 1986, p. 92).

In this regard, statistical data on innovation in Icelandic companies show interesting results. Innovation, measured as the introduction of new products/services, or newly implemented work processes, was evident in 50% of Icelandic companies, with ten employees or more between the years 2014 and 2016. The number of companies undertaking innovation has, therefore, not increased much as similar results are shown for the years 2012 to 2014 (Statistics Iceland, 2017). These findings certainly raise questions regarding innovation management within Icelandic companies. But in fact, not much is known about innovation practices in Iceland. Academic researchers have, to some extent, studied innovation in Iceland. However, it has mainly been in the field of education and some established nature-based tourism firms and Icelandic small and medium-sized enterprises (SMEs) (e.g., Grimsdottir & Edvardsson, 2018; Hoarau,
The research regarding established nature-based tourism firms and SMEs focus particularly on knowledge management, such as absorptive capacity and open innovation within Icelandic companies, and do not study other factors that have an impact on innovation. Research suggests that companies can use several factors to promote innovation (Bharadwaj & Menon, 2000), which will be the main focus of this study.

The focus of this study is, thus to look into how established Icelandic companies approach innovation. To do this, the author will be undertaking a deductive research approach. The process will include mapping out their practices and analyzing them with the conceptual framework chosen for this research. The study's conceptual framework is based on Davila's & Epstein's (2014) views of activities of successful Startups, and Miller's (1983) conceptualization of entrepreneurial orientation (EO), which is also supported by more recent research (Kreiser & Davis, 2010; Morris & Lewis, 1991; Wiklund, 1999; Wiklund & Shepherd, 2005). Activities of successful Startups and EO include factors that established companies can exploit to stimulate innovation. This study will use various factors originating from the two sources, mentioned above, as a guiding light and merge them into a special conceptual framework for this study. The former source on activities of successful Startups contemplates how established companies can apply a set of management tools, referred to as the Startup Corporation, when going after strategic discoveries within their companies. The concept of the Startup Corporation is an invention of two researchers and theory makers, Davila & Epstein, even though they draw from the work of other researchers as well. The Startup Corporation theory aims to allow established companies, ranging from 30-30,000 employees, to employ tools normally attributed to Startups and established companies. These tools incorporate effective ways that Startups exploit when it comes to breakthrough developments and the strengths regarding execution and scaling that established companies carry (Davila & Epstein, 2014). The latter source, mentioned above, EO, is, in contrast to the former, built on a broader base. It is an established concept where many researchers have contributed and has received attention in the literature. EO considers organizational orientation where companies can create an environment that encourages innovation (Bharadwaj & Menon, 2000; Wiklund, 1999).
It has been argued that EO can positively influence firm performance, where the relationship between the two concepts increases over time (Wiklund, 1999).

This study is a qualitative research of multiple-case studies. The research question was created in regard to the objective of this thesis as well as the intention of providing the partner company, Kompás, knowledge and educational platform, with valuable information in their dissemination of knowledge. This study contributes to the innovation management literature, particularly to the area that focuses on innovation in established companies and how they go about it. This study proceeds according to the following structure: Followed by the research question is a review of relevant, existing research and theories for conducting this research. The literature review is divided into the following sections: Innovation, entrepreneurship, corporate entrepreneurship, entrepreneurial orientation, managing for creativity and innovation, and dimensions of the conceptual framework. The dimensions are presented in the following order: Inspiration, learning, innovativeness, risk-taking, and proactiveness. Thereafter, frameworks A and B are introduced. Framework A is Davila's & Epstein's (2014) views on activities of successful Startups, and framework B is Miller's (1983) conceptualization of EO. Based on these two frameworks, framework C is introduced as the one applied in this study. Subsequently, the methodology of the approach is presented, including the research method, company selection, participating companies and interviewees, discussion on the participating companies and data collection. Results are then presented, followed by a discussion, including an overview of results, managerial implications, and limitations. Finally, the study's conclusion is set forth.

1.1 The research question
This study aims to answer the following research question:

*How do established Icelandic companies approach innovation?*

In this study, approach has been defined as management practices that foster innovation. These management practices concern the internal organizational environment, such as management of employees, resource and project allocation, strategy, and goals. This study refers to innovation as the development and introduction of new products, processes, or solutions, in a rapidly changing marketplace.
This study looks at established companies, companies that are beyond the early years of their development, a time referred to as the Startup phase, thus older than 0-1 years, and secondly, as companies that employ 30 or more employees (Adelino, Ma, & Robinson, 2017; Davila & Epstein, 2014). The participating companies are nine, each providing one individual to be interviewed in order to answer the aforementioned research question. All nine participating companies can be defined as being established companies considering that they range from being 5-50 years old, and having 30-380 employees.

The author decided to create this specific research question because he had a compelling need to find out the answer, as there is a lack of research on how established Icelandic companies come about innovation. With the research question posed by the author, the intention is to add knowledge to the innovation literature.

2. Literature review

This chapter covers an overview of the literature concerning the relevant research and theories for conducting this research. It will be presented in the following order: Innovation, entrepreneurship, corporate entrepreneurship, entrepreneurial intensity, entrepreneurial orientation, and managing for innovation and creativity. These topics were chosen as they explain how established companies approach innovation and in what manner they can carry out innovative activities. All components include a variety of definitions, from several researchers, relevant to this study. The literature review closes with a presentation of the dimensions of the conceptual framework for this research, which include: Inspiration, innovativeness, risk-taking, proactiveness, and learning. The chapter as a whole aims to give a clear picture of how innovation can be practiced within organizations, with activities of successful Startups and entrepreneurial orientation (EO) as guiding principles. The author decided to use and combine these specific dimensions as they all have special benefits useful in the context of established companies. The reason behind the selection of two frameworks, activities of successful Startups and EO, and how they merged into the study's conceptual framework will be thoroughly explained in the next chapter.
2.1 Innovation

Knight received his M.S. and Ph.D. at the Carnegie Institute of Technology and is a prominent figure in the innovation literature. He is one of its earliest scholars and has published a range of articles regarding innovation in broad areas (Knight & Wind, 1968). He defined innovation as "the adoption of a change which is new to an organization and to the relevant environment" (1967, p. 478). This definition indicates that it is critical for organizations to not only generate new ideas but also to apply them, adopt them, to their practices. Innovation of a new product has only taken place after the product is created and put into use. Similarly, the innovation of a production process only occurs when the company has implemented it in its operations. Knight takes this up and says that organizations have been called a medium through which new ideas get introduced into our society (Knight, 1967). Focusing even more on the importance of the implementation part, Knight (1967) argued that the organizational innovation process includes two fundamental aspects, which are "the creation of the idea and its development and the introduction and adoption of the idea" (1967, p. 480). But unfortunately, innovation is not cheap or simple. Otherwise, companies would do more of it instead of being resistant to undertaking innovative activities that are essential to their future. In fact, many firms tend to innovate only as a reaction to a competitor's moves or at difficult times (Morris, Kuratko, & Covin, 2008), which could be indicating that they do not have enough resources to meet customers' needs with innovation.

Knight's views are further supported by Duane Ireland's, Kuratko's, & Morris's (2006a) research, which have particularly studied innovation at all levels in corporations. They argue that ideas and knowledge inside organizations are perceived to be more important than physical assets when it comes to competitive advantage. Thus, company leaders need to focus on knowledge development and create clear procedures in order to share this knowledge effectively throughout the organization. It has been argued that innovation is one of the most critical elements of shared organizational knowledge. Duane Ireland et al. (2006a) identify innovations as bringing something new into being, something that takes place inside organizations in the form of new products, processes to use to create products, new administrative routines, and structures. Innovation is also referred to as the outcome, products, and processes, resulting from planned and intentional efforts of organizations, teams or individuals in order to introduce and develop improved and new working methods (Kumar, Yakhlef, & Nordin, 2019).
The innovation concept can be seen nearly everywhere today, as Kahn (2018) remarks - in mission and objective statements in organizations and diverse areas such as universities. Iceland is no exception, and increased debate about innovation can be seen in Iceland, which is reflected, among other things, in tax-breaks and increased funding and support from the government. This could be signaling that innovation is thought to be an essential approach for companies and future employees to exploit, considering that new products and services are an important factor for organizations to adapt to changes in competition, markets, and technology (Dougherty & Hardy, 1996).

Moreover, innovation is not exclusively relevant in the research and development lab or the design group context. In fact, innovation is not a department alone. Innovation is required across all departments; it is a mindset that should spread throughout the whole enterprise (Sawhney & Khosla, 2014). So, if firms want to survive, they must become more innovative (Dougherty & Hardy, 1996).

2.2 Entrepreneurship
Closely related to innovation, as discussed above, is the concept of entrepreneurship as noted by Menold, Jablokow, Ferguson, Purzer, & Ohland (2016). Within entrepreneurship is the important dimension of innovativeness that sheds light on the relationship between these two concepts. Innovativeness will be described in further detail later on as part of the corporate entrepreneurship literature. Therefore, it is essential to uncover the concept of entrepreneurship subsequently to the innovation section.

The entrepreneurship concept is broadly used in diverse contexts (Lumpkin & Dess, 1996). Generally speaking, entrepreneurship refers to the creation of organizations, wealth, innovation, and change and can be perceived as a societal good (Morris et al., 2008; Morris & Lewis, 1991). Nevertheless, entrepreneurship has been defined in numerous different ways, as there is substantial disagreement over its meaning and perspective (Morris et al., 2008).

Entrepreneurship, from a traditional perspective, has been viewed as an effort or trait of an individual. This individual is someone who challenges the state of affairs by converting a vision into a successful venture (Morris & Lewis, 1991). However, it has been argued that focusing on the personality characteristics and traits of an entrepreneur will not adequately define the entrepreneurship phenomenon (Gartner, 1988). From a more contemporary perspective, entrepreneurship is viewed as a process and practice
that takes place within organizations. Activities such as opportunity evaluation, resource and venture management, and defining a business concept are included in the process (Morris & Lewis, 1991).

Stevenson & Jarillo defined entrepreneurship in a way that captures the essence of the concept from a contemporary perspective, or as "the process of creating value by bringing together a unique combination of forces to exploit an opportunity" (as cited in Morris et al., 2008, p. 10). This definition possesses four fundamental aspects. First of all, it shows that entrepreneurship is a process and can, therefore, be applied in all organizational contexts (Morris et al., 2008). Morris & Lewis (1991) support this view and argue that entrepreneurship is conceptualized from a process perspective. This process can be managed, is ongoing, and can be broken down into different stages (Morris et al., 2008). It requires firms to bridge the resource gap and make several choices in a manner both externally appropriate and internally consistent with the environmental context (Stevenson, Roberts, & Grousbeck, 1994). Secondly, the definition claims that value creation occurs in places where it was previously missing. Entrepreneurs create this value both inside the organization and in the marketplace. Thirdly, resources are uniquely combined by entrepreneurs. Entrepreneurs differentiate their efforts and create value by composing unique combinations of technologies, money, procedures, people, materials, and other resources. Finally, opportunity-driven behavior is one of the fundamental aspects of entrepreneurship (Morris et al., 2008).

Stevenson, Roberts, & Grousbeck defined entrepreneurship in the same vein as the fourth aspect above, or as the "the pursuit of opportunity without regard to resources currently controlled" (1994, p. 5). Here, entrepreneurship's starting point for both the firm and the individual is the ability to creatively look for an opportunity (Stevenson et al., 1994). Opportunity can be defined as a feasible and desirable future situation, which differs among individuals (Stevenson & Jarillo, 1990). That is why it is critical to recognize, evaluate, prioritize, and actualize new opportunities (Morris et al., 2008). However, for an opportunity to be perceived as good, it must be feasible and represent a desirable future state. Then, a strategy to exploit the opportunity must be developed once the opportunity has been identified. This strategy can either drive the success or failure of the opportunity. In order to increase the likelihood of success, the opportunity must profitably accommodate the target market's needs (Stevenson et al., 1994).

In sum, this study will follow a contemporary perspective of entrepreneurship that
characterizes in, as mentioned above, process perspective, value-creations, unique resource combinations, and opportunity-driven behavior.

The basis of entrepreneurship is the eagerness to pursue opportunities without taking the controlled and available resources into account (Stevenson & Jarillo, 1990). Stevenson et al. (1994) point out that established companies need to practice entrepreneurship as it is an essential factor in their management process, which can contribute to the economy's vitality. The following section will address corporate entrepreneurship (CE), which is a particular approach to practice entrepreneurship within organizations.

2.3 Corporate entrepreneurship (CE)
Entrepreneurship can occur in a range of organizational contexts and can be manifested in various ways inside small firms, mid-sized, large companies, Startups, public sector agencies and non-profit organizations (Morris et al., 2008). Among factors forcing organizations to become more entrepreneurial are rapid technological progress and corporate downsizing. In such cases, many firms are attempting to pursue new ideas and opportunities with the help of proactive and innovative behavior. This kind of behavior entails corporate entrepreneurship (CE) (Kuratko, 2007). CE takes place when entrepreneurship occurs in a context larger than Startups, which is also referred to as intrapreneurship and has received a considerable wave of interest (Stevenson et al., 1994).

CE has been connected to various and occasionally different organizational phenomena. The most common ones are frequently viewed as three different situations. The first phenomenon applies to the situation when established organizations enter new business ventures. The second phenomenon refers to the situation when individuals inside a corporate context promote product ideas. The third phenomenon considers the situation when an entrepreneurial philosophy infuses the organizational outlook and operations. Importantly, these phenomena may act as independent dimensions of entrepreneurial actions inside an organization as they are not mutually exclusive by nature (Covin & Miles, 1999).

CE has, for long, been identified as a feasible means for sustaining and promoting corporate competitiveness and is a process that firms can exploit in order to innovate and pursue entrepreneurial opportunities (Covin & Miles, 1999; Duane Ireland et al., 2006a). This process can thus assist firms in creating new business through market
developments along with process and product innovations (Duane Ireland et al., 2006a). It has been argued that innovation in the broader context is the most prevalent theme fundamental to all types of corporate entrepreneurship (Covin & Miles, 1999). Therefore, firms are increasingly relying on CE to foster and develop their competitive advantages, elements that are grounded in innovation (Duane Ireland et al., 2006a).

Undeniably, employees are the foundation for CE and organizational innovation to occur. By exploiting CE, established firms create an environment and processes for individuals to pursue entrepreneurial opportunities, regardless of the nature and level of available resources. The focal point of an effective CE is creating an environment that encourages and motivates employees to partake in innovative activities. When employees are motivated, and all employees' entrepreneurial potential is sought, the firm's likelihood of maintaining a sustained CE increases. Therefore, leaders and managers need to focus on creating an "entrepreneurial friendly" workplace and structures in order to foster a sustainable CE. By doing so, entrepreneurial opportunities can be utilized where new products and services can be sold at a price exceeding the development-, support-, and distribution costs (Duane Ireland et al., 2006a). The unifying objective of CE is to improve the company's financial performance and competitive advantage. It can be applied to various levels of the firm; business unit, functional, project or corporate level and empirical evidence show that CE leads to exceptional firm performance (Covin & Miles, 1999; Duane Ireland et al., 2006a).

2.3.1 Entrepreneurial Intensity (EI)

Academic research and observations of firms in different settings have suggested that organizations possess different levels of entrepreneurial intensity (EI) and are perceived to be different when it comes to their entrepreneurial perception. EI covers two fundamental aspects. Firstly, it looks into the frequency of entrepreneurship or how many entrepreneurial initiatives companies pursue. Secondly, it seeks to understand if these initiatives represent incremental or breakthrough ideas, which is the degree of entrepreneurship. The indication of the degree of entrepreneurship is the extent to which an organization's efforts are referred to as proactive, risky, or innovative (Duane Ireland et al., 2006a). Frequency and degree of entrepreneurship are considered jointly in order to assess an organization's EI (Duane Ireland et al., 2006a). As entrepreneurship takes place to some degree in all organizations and societies (Morris & Lewis, 1991), the aim of this study is to see how much a specific venture proves to be entrepreneurial, rather
than analyzing if they are entrepreneurial or not. Entrepreneurship is a variable phenomenon, where highly entrepreneurial efforts flourish in certain conditions, whereas other conditions produce entrepreneurial efforts that are moderate (Morris & Lewis, 1991).

Research shows that the relationship between EI and a company's performance is statistically significant. This indicates that companies with stronger entrepreneurial orientation (EO), a concept related to EI, outperform those with a weaker such orientation (Morris et al., 2008). EO will be demonstrated in further detail in the following section.

2.4 Entrepreneurial orientation (EO)

Corporate entrepreneurship (CE) and entrepreneurial orientation (EO) are highly related concepts, according to Dess & Lumpkin (2005). They consider EO a prerequisite for successful CE to occur inside organizations (Dess & Lumpkin, 2005). Moreover, the degree of entrepreneurship and EO include the same dimensions: Innovativeness, risk-taking, and proactiveness, which signals an even closer connection between the two concepts. These three dimensions are based on Miller's (1983) conceptualization and have been analyzed and utilized consistently in the entrepreneurship literature (Rauch, Wiklund, Lumpkin, & Frese, 2009).

However, different scholars seem to find it difficult to reach a consensus on the dimensionality of EO (Rauch et al., 2009). The EO concept has previously been extended from the enumeration above to include additional factors such as autonomy and competitive aggressiveness. Nonetheless, it has been suggested that competitive aggressiveness in established companies does not necessarily prompt the development of radical innovation (Lassen, Gertsen, & Riis, 2006). Moreover, the three dimensions of EO (innovativeness, risk-taking, and proactiveness) are perceived to be equally important when it comes to explaining business performance, and future studies are encouraged to specifically use these three dimensions (Rauch et al., 2009). It has also been argued that firms demonstrating high performance simultaneously on these three dimensions can exclusively be perceived as entrepreneurial (Lumpkin & Dess, 1996). Therefore, the current study is focused on these three dimensions, following Miller's (1983) conceptualization of EO. The autonomy concept will be somewhat examined within the dimension of inspiration in the conceptual framework, as it considers the work environment, and has been argued to be a critical contributor to radical innovation.
Entrepreneurial orientation (EO) has received considerable empirical and conceptual attention (Rauch et al., 2009). Research suggests that an EO positively influences small businesses, as they demonstrate higher business performance (Wiklund & Shepherd, 2005). These findings indicate relevancy for studying the concept in the Icelandic market as it has been argued that nearly all Icelandic companies are small businesses (Rikhardsson & Dull, 2016). Other findings also suggest that firms may benefit from adopting an EO in the rapidly changing and uncertain environment accompanied by shortened business models and product lifecycles. Indeed, firms need to be constantly seeking new opportunities in order to survive in these conditions, like firms exploiting an EO strategy. Such firms are not afraid to take risks in their product-market strategies and frequently innovate (Rauch et al., 2009).

2.5 Managing for creativity and innovation

The sections so far expose ways that organizations can adopt in order to nurture innovation. However, organizations need to strike some balance between normal operations and new innovative activities. Research suggests that both creative- and routine approaches seem to be difficult for many established organizations as managers...
face the challenge of creating an organization, both for tomorrow's innovation and today's work (Tushman & Nadler, 1986). Schumpeter's (1947) arguments are in line with this viewpoint, as he stated that there is a difference between management and enterprise. The enterprise's concern is to materialize new ideas, while the management's concern is the ongoing business vitality. He refers to adopting new ideas as "getting new things done" and suggests that the history of the economic system's private ownership would be different if it had been practiced smoothly and consistently. Unfortunately, it has not been practiced adequately because of the difficulties followed by coping with the resistance of established practice (Schumpeter, 1947). This resistance can be captured in organizational requirements for employees. They are expected to be innovative, develop creative solutions, and take the initiative, while obliged to make their work more efficient, standardized, and efficient (Madjar, Greenberg, & Chen, 2011). One could perceive this as a tough challenge since these actions are directed in completely different directions. Ford (1996) even argued that habitual and creative actions are competing for behavioral alternatives. Interestingly, it has been argued that organizations neither require nor desire pervasive creativity. Individuals are creatures of routine, which sheds even more light on the challenge managers face; to constantly encourage individual processes that promote creative action while managing the temptations that attract people to habitual actions (Ford, 1996).

These two activities that pull in opposite directions have also been referred to as exploration and exploitation. Exploitation is a habitual approach where old certainties are relied on. Exploration, on the other hand, is the anticipation of new possibilities and alternative practices (March, 1991). March's (1991) argument is in line with previous studies, as he states that both approaches are the essence of survival for companies in a turbulent environment. Moreover, he argues that significant elements that contribute to organizational performance and competitive advantages, such as regeneration, learning, technological change, imitation, and analysis require a trade-off between exploitation and exploration.

Although the literature demonstrates the need for a balance between innovation and established practice, little is known about how one comes about it. Obstfeld (2012) examined how organizations executed managerial routine and creative non-routine approaches and presented a framework that included both routine and creative project
paths. He argues that companies can use different forms of problems, choices, solutions, resources, contingency management, and combinatorial action to understand how, among other things, these approaches emerge and interrelate.

Hjorth (2005) takes on a slightly different perspective. He argues that entrepreneurship can be characterized as a form of social and organizational creativity where the aim is to create space for play or invention within an established order with tactical art to accomplish new practices. Heterotopias are a concept of other spaces, sometimes used to describe areas for invention and play. These spaces can be created everywhere, inside and outside organizations (Hjorth, 2005). Even in the accounting department, where sometimes managers seem to do not want creativity (Amabile, 1998). Heterotopias can offer room for everyday creativity, creation, and imagination in order to actualize ideas (Hjorth, 2005). Hjorth (2005) also argues that managing creativity can be challenging as it has unexpected results, and therefore has a social context that cannot be contained within an economic context. However, managers can exploit several ways to stimulate creativity and create spaces for play and work. One way is bringing artists into companies. Ultimately, heterotopias can be used to expand and rethink administrative styles and patterns. Companies can then create an entrepreneurial invention in the workplace (Hjorth, 2005).

This section marks the end of the overview of the relevant research and theories for conducting this research, where the main concepts have been examined and explained. The following section will cover a literature review on the conceptual framework, where definitions and explanation of dimensions will be presented.

2.6 Dimensions of the conceptual framework
The conceptual framework applied in this study is based on two frameworks, A by Davila & Epstein (2014) and B by Miller (1983). It comprises five dimensions, originating from both frameworks. The main reason for combining the two frameworks was that they complement each other, explained further in the next chapter. Two of these dimensions are selected aspects of successful Startups, and three of them stem from entrepreneurial orientation (EO). The two Startup aspects selected to form a part of the conceptualization for this study are inspiration and learning. They form, according to Davila & Epstein (2014), a part of six activities of breakthrough innovation inside established companies. Furthermore, Morris et al. (2008) maintain that it is
critical to examine three fundamental dimensions of entrepreneurship in order to access how entrepreneurial a given organization is. They are innovativeness, risk-taking, and proactiveness, which form the concept this study follows. Following is a presentation of the literature pertinent to the framework and its dimensions.

2.6.1 Selected activities of successful Startups

Activities of breakthrough innovation inside established companies are six, according to Davila & Epstein (2014), which are inspire, attract, combine, learn, leverage, and integrate. This section will cover the two activities that were selected for the study's conceptual framework, inspire, and learn. These two activities appear to be applicable in all organizational contexts, whereas the remaining activities seem to be more applicable in larger organizational contexts. As aforementioned, all Icelandic companies can be categorized as small (Rikhardsson & Dull, 2016), and therefore, the author decided to choose only these two activities, inspire and learn. Further explanations of the reason behind choosing these activities will be provided in the next chapter.

2.6.1.1 Inspiration

According to Amabile (1998) and Hjorth (2005), managers are increasingly seeking to increase creativity within their organizations, believing in the value creation of new ideas. Hjorth (2005) also points out that entrepreneurship has proven to be just the solution to achieve that goal. Entrepreneurial potential resides within every employee inside an organization, but many established companies fail to exploit it (Morris et al., 2008). Amabile (1998) supports this view and argues that creativity; motivation, creative-thinking skills, and expertise is more often than not killed rather than supported. This occurs for the reason that established companies tend to focus significantly on maximizing business imperatives, which leads them to undermine and crush creativity unintentionally (Amabile, 1998). Accordingly, it is crucial to focus on creating a work environment that fosters entrepreneurial behavior (Morris et al., 2008). Amabile (1998) found out that it is possible to develop organizations that support necessary business imperatives without killing creativity. Managers can influence motivation, creative-thinking skills, and expertise through workplace conditions and practices (Amabile, 1998). Work environment applies to a set of conditions and surroundings employees work within. Employee's interactions and experiences shape their perception of the environment over time. These perceptions are based on the extent to which the work environment allows or expects employees to, for example, try new
things, experiment and use resources not formally allocated to them (Morris et al., 2008).

When it comes to Amabile's (1998) three components of creativity; motivation, creative-thinking skills and, expertise, it is easier and less time consuming for managers to influence motivation rather than creative-thinking skills and expertise. Motivation can either be extrinsic or intrinsic. The extrinsic one can be identified as a carrot or a stick, where the most common motivation is monetary. This type of motivation does not necessarily help and can be the origin of a firm's creativity problem. Conversely, intrinsic motivation is a desire within a person to follow his or her passion and interest, which is vital for creativity. Research shows that by changing an organization's environment slightly, intrinsic motivation can be increased significantly. Managerial practices such as granting freedom, matching employees and assignments, allocating resources, designing teams, organizational support, and appreciating creative efforts, play a fundamental role in enhancing creativity (Amabile, 1998). When it comes to granting freedom, Amabile (1998) suggests that it is best to specify goals but not the ways towards these goals. She argues that managers need to collect necessary information about employees in order to match employees and projects carefully. If not, there is a risk of matching the most eligible employee to the most eligible project, which can generate unsatisfactory results. She also states that managers in creative organizations recognize creative work with non-monetary recognition in order to foster intrinsic motivation. Kearney, Hisrich, & Roche (2008) share the same opinion and argue that it is essential to provide recognition and rewards to encourage employees to experiment and take risks.

Creativity can be seen as combining many existing ideas into novel ones. An environment rich in diverse perspectives aids the cross-pollination of ideas and increases the likelihood of new combinations occurring. Thus, managing diverse perspectives and cross-pollination, along with creating and maintaining the right environment, is fundamental. Organizations can then affect the quality and type of innovation occurring internally by creating an environment that offers individuals from different backgrounds with different perspectives, a place where they can communicate and exchange ideas (Davila & Epstein, 2014).
Individuals inside Startups are constantly motivated and inspired to innovate because of the entrepreneurial environment surrounding them. These surroundings do not occur naturally in large, established organizations and need to be designed and planned for inspiration to happen. If not, the likelihood of breakthrough innovations diminishes as short-term pressure will absorb people's attention (Davila & Epstein, 2014).

Indeed, organizational culture has a significant impact on success and is equally essential for small and large firms (Baker & Sinkula, 2009). The culture within organizations can be referred to as social energy, which can either drive or deter a firm's success. Firms that have a high degree of entrepreneurial intensity possess an entrepreneurial culture, where uncertainty and change are the groundwork for innovation and improved performance (Duane Ireland et al., 2006a). This culture allows employees and managers to behave entrepreneurially and focuses on encouraging people to create and innovate, where the focal point is the future and the capability to transfer and develop knowledge (Duane Ireland et al., 2006a; Kearney et al., 2008).

Innovation needs to conform considerably to a firm's strategy for an organization to be effective. Also, it is essential to integrate innovation into the organizational culture and behavioral patterns. Indeed, innovation does not just magically occur (Kearney et al., 2008). That being said, Tushman & Nadler argue that innovation is instead a "calculated outcome of strategic management and visionary leadership that provides the people, structures, values, and learning opportunities to make it an organizational way of life" (1986, p. 92).

### 2.6.1.2 Learning

Learning is a process of something everyone does every day by taking in and processing new information. This process of learning can be defined as the creation of knowledge through experience transformation (Beckman & Barry, 2007). Another way of learning would be validating new ideas, which structures the novelty of the innovation inside the organization as a whole (Kumar et al., 2019). In a similar vein, Calantone, Cavusgil, & Zhao (2002) suggest that innovation is a learning process, facilitating the implementation of new processes, ideas, and products. They continue to point out that for organizational learning, innovation is important, and if modern organizations intend to gain a competitive advantage, they need to nurture a strong learning orientation.
Thus, firms aiming to stand out through product development can benefit from a positive learning process (Calantone et al., 2002).

Wang (2008) maintains that entrepreneurial firms should be required to cultivate organizational learning in order to boost the entrepreneurial orientation (EO) impact on performance. Similar scholars and practitioners seem to agree that organizational learning is a key strategic variable that catalyzes innovation as, learning, refinement, and practice of innovation-related skills are critical factors for increased effectiveness in product development (McKee, 1992). Probing with an early version of a product can serve as a platform for learning where organizations can, among other things, examine the most receptive market segments and the market as a whole. Lynn, Morone, & Paulson (1996) show that companies that innovate successfully tend to learn from their experience. Based on that learning, they adapt the product and market approach with lower uncertainty and better knowledge, which indicates that the probing and learning process is essential to the innovative firm (Lynn et al., 1996).

Ultimately, most ideas require experimentation to succeed. Learning inside established companies requires trying as many ideas as possible at the lowest cost attainable (Davila & Epstein, 2014). Therefore, learning demands broad and inspiring goals, management support, and resources as management actions affect successful innovation inside an organization rather than environmental factors (Davila & Epstein, 2014; McKee, 1992). Moreover, organizations need to allow people to experiment and provide them with time to learn from results and outcomes. Both failures and successes should be looked at as equal learning tools, considering that the discovery process frequently includes failures and wrong assumptions (Davila & Epstein, 2014). Research shows that when a risky project fails, managers inside entrepreneurial organizations do not punish employees (Jennings & Lumpkin, 1989). Thus, organizations need to foster an environment that maintains a tolerance for failure and encourages calculated risk-taking, which are factors that managers must execute to initiate corporate entrepreneurship (CE) (Hornsby, Kuratko, & Zahra, 2002).

2.6.2 Three dimensions of entrepreneurial orientation

2.6.2.1 Innovativeness

Innovativeness is perceived as a critical determinant in the definition of entrepreneurship. The concept is also an essential component of entrepreneurial
orientation (EO) as it considers a firm's engagement in new opportunities. Innovativeness refers to a firm's inclination to support and engage in creative processes, novelty, new ideas, and experimentation (Lumpkin & Dess, 1996). It also applies to the willingness to depart from the current situation and grasp new opportunities and ideas (Baker & Sinkula, 2009). Innovativeness reflects the interest in activities or concepts that are unique, novel, and different from those presently available to the organization (Morris et al., 2008). Firms' innovativeness can be seen on a continuum, starting from the enthusiasm to try or experiment with new things and ending with a full commitment to carry out the latest technology and product advances (Lumpkin & Dess, 1996). The broadness of this EO dimension enables several diverse areas of innovativeness to fit the conceptualization. These areas are, for instance, product, process, and service innovation (Linton, 2019). Thus, innovativeness, in general, applies to novel, creative and unusual solutions to needs and problems ranging from new processes to new products or services (Duane Ireland, Kuratko, & Morris, 2006b).

2.6.2.2 Risk-taking
Risk-taking is a concept that is commonly used to characterize entrepreneurship (Lumpkin & Dess, 1996). Risk-taking refers to the eagerness to exploit critical resources in order to capitalize on opportunities when the outcome is uncertain and could result in failure (Duane Ireland et al., 2006b). Risks can be related to resource allocations, markets, products, and services (Morris et al., 2008). But risks associated with entrepreneurship must be calculated, and potential losses and gains exposed and made clear (Duane Ireland et al., 2006b) as entrepreneurship does not require individuals to make irresponsible decisions. The emphasis is not on uncontrollable and extreme risks (Morris et al., 2008).

It can be argued that all firms participate in projects involving some risk, which indicates that there is no such thing as "absolutely no risk" in the organizational context (Lumpkin & Dess, 1996). Anything new includes risk because of the likelihood that results will be different from what was expected (Morris et al., 2008). Therefore, the risk-taking concept can range from safe risks to highly risky behavior (Lumpkin & Dess, 1996). According to Lumpkin & Dess (1996), safe risks are similar to depositing money in a bank. Whereas bringing new products into the market, borrowing heavily, or investing in unexplored technology might represent a high-risk behavior. High-risk companies tend to make substantial resource commitments or attain massive debt in
order to obtain high returns (Lumpkin & Dess, 1996). Similarly, Miller & Friesen (1978) defined risk-taking as "the degree to which managers are willing to make large and risky resource commitments — i.e., those which have a reasonable chance of costly failure" (1978, p. 923). Morris et al. (2008), on the other hand, defined behavior as highly risky when companies undertake new market creations and redefine industries, without taking a company's resource investment into account. In general, entrepreneurially oriented firms are often associated with highly risky behavior when exploiting opportunities in the marketplace (Lumpkin & Dess, 1996).

2.6.2.3 Proactiveness
Morris et al. (2008) defined proactiveness as an action orientation, epitomized in Nike's slogan, "Just do it." Similarly, Duane et al. (2006b) defined proactiveness as being involved in the anticipation and recognition of an entrepreneurial opportunity, followed by taking action. Proactiveness requires firms to accept failure and encourage employees to pursue entrepreneurial opportunities that can be the base for innovation, competitive- and first-mover advantage to occur inside the firm (Duane Ireland et al., 2006b). It proposes a forward-looking perspective followed by new-venturing or innovative actions, which is crucial to the EO construct (Lumpkin & Dess, 1996). Proactiveness also refers to the firm's ability to embrace initiatives and pursue opportunities in the marketplace (Baker & Sinkula, 2009). It applies to a firm's reactions to trends in the environment and considers if the firm reacts to trends or starts them, by introducing new administrative techniques, products, and technologies (Miller & Friesen, 1978). Venkatraman's (1989) definition of proactiveness is consistent with Miller's & Friesen's (1978) definition. He defined proactiveness as "seeking new opportunities, which may or may not be related to the present line of operations, introduction of new products and brands ahead of the competition, strategically eliminating operations, which are in the mature or declining stages of life cycle" (1989, p. 949). Therefore, even though a firm is not the first to come up with new innovations in the market, they can be defined as a proactive and leaders, if they have the willingness and anticipation to pursue opportunities (Lumpkin & Dess, 1996). Overall, the fundamental aim of proactive behavior is taking responsibility, implementing, and acting in a way that brings an entrepreneurial idea to materialization (Morris et al., 2008).
Having now reviewed the various dimensions of the study's conceptual framework. The next chapter will look more closely at why and how these dimensions were chosen to best serve the purpose of this study. Framework A that covers the activities of successful Startups, is followed by an introduction to framework B that includes the three dimensions of EO. The chapter ends with the introduction of the study's conceptual framework, framework C, which came into being as a merger of framework A and B.

3. Conceptual framework

As aforementioned, two frameworks were utilized to create the conceptual framework of this study. This chapter will give a brief overview of both frameworks and show how they were merged, to create a conceptual framework of its own to suit this study.

3.1 Framework A – Activities of successful Startups

Framework A comprises six dimensions pertaining to the activities of successful Startups. They are featured below (Figure 1) as activities of breakthrough innovation in the Startup Corporation.

![Activities of successful Startups diagram](image)

Figure 1 - Framework A (Davila & Epstein, 2014)

These six activities are tools that established companies can utilize in order to foster breakthrough innovation and, to some extent, behave like Startups (Davila & Epstein, 2014). Activities of successful Startups are presented in the book; The Innovation Paradox. The author found inspiration and learning to be prevailing factors in the book and, as mentioned above, more suitable than the other factors for the Icelandic organizational context. Hence, these two activities were chosen to be incorporated into
the conceptual framework of this study. A full overview of the reason behind the decision to choose only two activities from Davila's & Epstein's (2014) list will be provided in the introduction for framework C, below. Framework A considers the opportunities established organizations have to manage innovation, as their innovations tend to be associated with more complex business models that bring together multiple and diverse capabilities. These complex business models are an advantage for established companies, over Startups, as complex business models are not sustainable in younger firms due to limited reach and resources. Organizations must have a holistic view of the innovation process in order to innovate successfully. Unfortunately, organizations seldom have this comprehensive view of their innovation processes, resulting in a lack of innovation inside the organization. The activities presented in Figure 1 are highly related to innovation activities that Startups tend to exploit. They require unique leaders that are known for relying on inspiration to partake in strategic bets and discoveries, where they need to lay great emphasis on experimenting, observing, questioning, associating, and networking. Furthermore, those leaders need to create a conductive organizational environment that supports and nurtures creative people inside the company in order to transform creativity into strategic opportunities (Davila & Epstein, 2014).

Entrepreneurship and Startups are closely related concepts, considering that starting a new firm can be viewed as the process of entrepreneurship where entrepreneurship manifests in contexts, including the Startup condition (Audretsch & Keilbach, 2004)

The next framework considers entrepreneurship within the corporate context.

3.2 Framework B – Three dimensions of entrepreneurial orientation
Miller (1983) claimed that entrepreneurship could be viewed as the composite weighing of innovativeness, risk-taking, and proactiveness. These dimensions are presented in Figure 2 on the next page.
Firms that are entrepreneurially oriented are those who participate in product-market innovation, engage in considerably risky ventures, and are proactive when it comes to introducing innovations in the market. On the contrary, firms that imitate competitors, innovate very little and are highly risk-averse can be defined as nonentrepreneurial (Miller, 1983). Framework B (Figure 2) shows Miller's (1983) conceptualization of entrepreneurial orientation (EO). These dimensions also apply to the degree of entrepreneurship, a concept under the corporate entrepreneurship (CE) literature, but CE, in general, takes place when entrepreneurship occurs in an organizational context (Stevenson et al., 1994). In order to foster sustainable CE, companies can promote innovativeness, risk-taking and proactive behavior, which can be categorized both as the degree of entrepreneurship and the three dimensions of EO (Duane Ireland et al., 2006a; Rauch et al., 2009). As aforementioned, entrepreneurial intensity (EI) has to do with the frequency and degree of CE taking place within firms. Thus, an EI score can expose a firm's entrepreneurial performance by assessing to what extent firms are innovative, risk-seeking, and proactive (Duane Ireland et al., 2006b).

Framework A and B have now been presented. They are the foundation of the study's conceptual framework, framework C, demonstrated below.

3.3 Framework C - The study's conceptual framework
In order to achieve the study's objective, to analyze how Icelandic companies approach innovation, it was essential to address these specific factors: Inspiration, innovativeness, risk-taking, proactiveness, and, learning. Accordingly, the author decided to choose two
activities of successful Startups, inspire and learn, and combined them with the three dimensions of EO. The two activities selected from the full list of activities in Figure 1, were chosen as the author found them especially relevant when combined with the three dimensions of EO. Moreover, research suggests that organizational culture, a phenomenon that touches on inspiration, and organizational learning, influences innovation culture within organizations (Abdul-Halim, Ahmad, Geare, & Thurasamy, 2019). Emphasizing on what has been previously discussed in this study, the reason for choosing these particular activities is also because the author found them to be prevailing factors in their originating book as well as being suitable for the Icelandic organizational context. The modified framework is exhibited below in Figure 3. This framework is not a linear process even though the dimensions are parallel. Rather, these dimensions should all be occurring simultaneously within organizations.

Figure 3 - Framework C

This study is based on framework C, a merger of two existing frameworks. The logic behind combining two frameworks to create a new one, rather than taking either A or B up as this study's framework, was a practical one. The main reason for combining the two frameworks was that they complement each other, as mentioned above. Moreover, both had dimensions that the author deemed important to incorporate in the study. Even though EO is an established and supported framework, it does not, from the author's point of view, account for the importance of inspiration and learning. Framework B is Miller's (1983) conceptualization of EO and can be defined as a conceptual framework as it arises from an academic journal. However, framework A cannot be defined as a conceptual framework as it is from the book; The Innovation Paradox, which could be categorized as a manual book for managers. Nevertheless, the author finds two of the
framework's dimensions relevant to the current study and perceives the reliability of framework A high. That is because Tony Davila, the co-author of the book, is a professor in entrepreneurship, which is a field highly related to the current study (IESE Business School, n.d.). In sum, framework B strengthens framework A and grounds an academic substance, resulting in the creation of this study's conceptual framework.

Framework C will be utilized to create a part of the semi-structured interview guide (Appendix, A). It will also be used to analyze the empirical data gathered from the interviews, considering that the study is of deductive nature, which the methodology chapter below will cover in more detail.

4. Methodology
This chapter will explain the methodological approach of this study. Detailed information about the research method, company selection, participating companies and interviewees, discussion on the participating companies and data collection is provided below.

4.1 Research method
The objective of this study is to find out how established Icelandic companies approach innovation. To reach this goal, a qualitative research method involving multiple case studies was chosen. Qualitative research strategy emphasizes typically words rather than numbers when it comes to the collection and analysis of data, and offers in-depth knowledge and insights (Bryman & Bell, 2015; Gephart, 2004). This study's topic focuses on obtaining information about the participating company's environment and social world. Therefore, the perspectives of the individuals responding on behalf of each company have to be taken into account. As Bryman & Bell (2015) and Gephart (2004) point out, that could be challenging through quantitative research methods. The qualitative method, on the other hand, allows the researcher to gain understanding and detailed descriptions of processes, meanings, and human interactions in organizational settings and real-life contexts (Gephart, 2004). Based on the advantages of the qualitative research method, demonstrated above, the author decided to follow this research method rather than a quantitative one.

Case study research can be used to gather empirical data through both qualitative and quantitative research methods and can be applied to single and multiple cases in order to
test a theory or create one (Eisenhardt, 1989). This method entails a detailed analysis of cases such as organizations, persons, or communities and is perceived to be suitable for several research projects and often necessary to reach scientific goals as this method holds up well, compared to other research methodology methods (Bryman & Bell, 2015; Flyvbjerg, 2006). Woodside & Wilson (2003) suggest using a multiple case study method to gain a more in-depth understanding of contingencies and patterns related to theory. The single-case study approach, on the other hand, has been criticized for its idiosyncratic nature, as such studies cannot be replicated (Woodside & Wilson, 2003). Based on these assumptions, the author decided to conduct a multiple case study. Cases in this study are nine, investigating as many companies using a qualitative research strategy based on in-depth semi-structured interviewing, as described by Bryman & Bell (2015).

Even though qualitative research methods are more typically associated with the inductive approach, which characterizes in theory generation, this study uses a deductive approach. A deductive approach presents the most prevalent view of the nature of the relationship between research and theory. This approach entails the application of relevant theory to guide the research, data collection, and interpretation of findings in relation to the predetermined theory (Bryman & Bell, 2015). Therefore, by undertaking a deductive approach, the author goes through a process of theory testing based on established theory. This is done to examine if the presented theory applies to particular cases. It has been suggested that the implementation of deductive approaches can serve as a substantial means towards assuring conviction in findings of qualitative research (Hyde, 2000). Other researchers also support this method and state that the deductive approach can be applied in qualitative research as it has previously been utilized in association with qualitative research in the academic field (Bryman & Bell, 2015; Hyde, 2000). Therefore, the author decided to undertake the deductive approach by testing the study’s conceptual framework, mentioned above. He also chose this method because he found a compelling need to examine how the practices of the participating companies were aligned to the dimensions of the conceptual framework (inspiration, innovativeness, risk-taking, proactiveness, and learning), which he would not be able to do with an inductive approach. Therefore, the conceptual framework was used as a guiding light in creating the semi-structured interview guide (Appendix, A), conducting the interviews and, analyzing the data. Consequently, the author was able to recognize similarities and differences between the participating companies in the
dimensions of the conceptual framework as the deductive approach allows for results evaluation on multiple dimensions (Bitektine, 2008).

4.2 Company selection
A purposive sampling method was utilized to set up a list of interviewees for the study. Interviewees were selected purposively based on their perceived capability to contribute to the theoretical understanding of the subject of this study, as discussed by Bryman & Bell (2015). The author sampled with the research question in mind as purposive sampling seeks to sample either relevant cases or participants in a strategic manner. This method is of non-probability nature, and thus, it is not possible to assume that results can be generalized to other companies in Iceland even though they may resemble some of the chosen companies (Bryman & Bell, 2015).

The sample consists of companies that are all known to partake in innovation activities or are at least expected to have a reason to do so. When selecting potential companies to participate in the study, an initial list of approximately 50 companies was considered. The main point of view was to find companies that fitted the criteria of being an established Icelandic company. With this part of the process, assistance was received from Björgvin Filippusson, the founder of the educational and knowledge platform, Kompás. With his inside knowledge of Icelandic businesses, the list was narrowed down to 12 companies.

Each company received an interview request by email (Appendix, B). In most cases, the author had to contact two persons inside each company, as some individuals did not answer and others forwarded the interview request (Appendix, B) to the appropriate employee within the firm. A maximum of three emails was sent to each prospective participant, though one per person was usually enough. When no reply was received, the author sought help from Björgvin, who could contact some of these individuals. Individuals that accepted to be interviewed but did not answer a confirmation email about location and time were given one phone call. Table 1 on the next page shows an overview of the contacted companies, their contact persons, and their responses to being asked to join the study. Possible responses were: Accepted, declined, or no answer.
Table 1 - Overview of sample

<table>
<thead>
<tr>
<th>Organization</th>
<th>Contact Name</th>
<th>Occupation</th>
<th>Accepted/ Declined/ No answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kassagerðin</td>
<td>Kristján Geir Gunnarsson/ Elísabet Yr Sigurðardóttir</td>
<td>Managing director/ Form designer</td>
<td>Accepted</td>
</tr>
<tr>
<td>Lýsi</td>
<td>Hildigunnur Ægisdóttir</td>
<td>Research and development director</td>
<td>Accepted</td>
</tr>
<tr>
<td>Skaginn 3X</td>
<td>Ingólfur Arnason/ Bylgja Pálsdóttir</td>
<td>Managing director/ Marketing director</td>
<td>Accepted</td>
</tr>
<tr>
<td>Ólgerðin</td>
<td>Októ Einarsson/ Telma Björg Kirstinsdóttir/ Gunnar B. Sigurgeirsson</td>
<td>Chairman / Research and development director/ Deputy CEO</td>
<td>Accepted</td>
</tr>
<tr>
<td>Nói Sirius</td>
<td>Finnur Geirsson/ Magús Bollason/ Silja Mist Sigurkarlsdóttir</td>
<td>CEO/ Production director/ Marketing director</td>
<td>Declined</td>
</tr>
<tr>
<td>Arctic trucks</td>
<td>Emil Grímsson</td>
<td>Chairman</td>
<td>Accepted</td>
</tr>
<tr>
<td>SS</td>
<td>Steinþór Skúlason/ Hafþór Úlfarson</td>
<td>CEO/ Marketing director</td>
<td>Accepted</td>
</tr>
<tr>
<td>MS</td>
<td>Björn Sigurður Gunnarsson/ Pállmi Vilhjálmssson</td>
<td>Research and development director / Managing director of production and operations</td>
<td>Accepted</td>
</tr>
<tr>
<td>Genís</td>
<td>Hilmar Bragi Janusson</td>
<td>CEO</td>
<td>Accepted</td>
</tr>
<tr>
<td>Kjörís</td>
<td>Valdimar Hafsteinsson/ Guðrún Hafsteinsdóttir</td>
<td>Managing director/ Marketing director</td>
<td>Accepted</td>
</tr>
<tr>
<td>Thorverk</td>
<td>Finnur Arnason/ Ágústa Yr Sveinsdóttir</td>
<td>Managing director/ Security and production manager</td>
<td>No answer</td>
</tr>
<tr>
<td>Freyja</td>
<td>Pétur Thor Gunnarsson</td>
<td>Marketing director</td>
<td>No answer</td>
</tr>
</tbody>
</table>

The next section provides further details about the study's participating companies and interviewees.

4.3 Participating companies and interviewees

With the final list of participating companies ready, a list of contact persons was established. The nine interviewees occupied various jobs, ranging from chairmen, CEOs, deputy CEOs, managing-, research, and development- to marketing directors. Table 2 on the next page shows an overview of the participating companies, interviewees and their occupation, the order of the interviews, and how they were conducted.
Table 2 - Overview of participating companies and interviewees

<table>
<thead>
<tr>
<th>Organization</th>
<th>Interviewee</th>
<th>Occupation</th>
<th>Arrangement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arctic trucks</td>
<td>Emil Grímsson</td>
<td>Chairman</td>
<td>Face-to-face</td>
</tr>
<tr>
<td>Lýsi</td>
<td>Hildigunnur Ægisdóttir</td>
<td>Research and development director</td>
<td>Face-to-face</td>
</tr>
<tr>
<td>Skaginn 3X</td>
<td>Ingólfur Arnason</td>
<td>Managing director</td>
<td>Face-to-face</td>
</tr>
<tr>
<td>MS</td>
<td>Björn Sigurður Gunnarsson</td>
<td>Research and development director</td>
<td>Face-to-face</td>
</tr>
<tr>
<td>SS</td>
<td>Hafþór Ulfarsson</td>
<td>Marketing director</td>
<td>Face-to-face</td>
</tr>
<tr>
<td>Genís</td>
<td>Hilmar Bragi Janussson</td>
<td>CEO</td>
<td>Telephone</td>
</tr>
<tr>
<td>Ölgerðin</td>
<td>Gunnar B. Sigurgeirsson</td>
<td>Deputy CEO</td>
<td>Face-to-face</td>
</tr>
<tr>
<td>Kjörís</td>
<td>Guðrún Hafsteinsdóttir</td>
<td>Marketing director</td>
<td>Face-to-face</td>
</tr>
<tr>
<td>Kassagerðin</td>
<td>Kristján Geir Gunnarsson</td>
<td>CEO</td>
<td>Face-to-face</td>
</tr>
</tbody>
</table>

Detailed information about interviewees and their employing company is provided below in the same order as the interviews took place. A part of the information below was extracted from the interviews, as the interview guide (Appendix, A) included a general theme. This theme was created to obtain information about interviewees, the companies where they were employed, and brief information about innovation within these companies.

4.3.1 Arctic Trucks – Emil Grímsson

The Arctic Trucks company specializes in rebuilding and altering four-wheel-drive vehicles to enhance their performance in rough terrain. For more than 25 years, the company has altered a great number of vehicles in line with their customer needs and wishes. They pride themselves on delivering cars that can meet any obstacle, be it for regular travel or specialized expeditions and work assignments in remote areas. Their cars have been driven in expeditions in the Arctic, where they are tested under extreme conditions. This experience in the Arctic has been useful in the development of all their solutions, from small adaptations to the complete reconstruction of a vehicle (Arctic Trucks, n.d.).

Emil Grímsson accepted to be interviewed on behalf of the company. As well as being chairman of Arctic Trucks he is also titled founder. The interview took place at the company's offices at Klettháls 3, Reykjavík. Arctic Trucks operates in Iceland, England, Dubai, Norway and the South Pole with approximately 118 employees working for the company. Operations in Iceland are characterized by built-in solutions for private
customers and businesses. Every year, the company in Iceland takes in 10-12 new types of cars and alters them in a new way by creating new solutions. In England and Dubai, the company is trying to make a standard product based on what is being done in Iceland. Operationally speaking, Norway is located somewhere in between, according to Emil. In the South Pole, the company faces a completely different situation, where the role of the employees is to conduct missions, such as leading a camera crew, on Arctic Trucks cars, in that area.

Arctic Trucks was created within the Toyota dealership in Iceland. Emil joined Toyota after graduating with an MBA degree, with the intent of making the company's customers the happiest in the world. He soon finds out that the restrictive car dealership environment almost threatens customers who want to alter their cars for better performance in untamed Icelandic nature. Listening to customers and their needs, Emil set out to develop solutions in this innovative field. Eventually, by putting Arctic Trucks in operations, the company managed to break through the restrictive environment and meet the need as perceived in the Icelandic market.

4.3.2 Lýsi – Hildigunnur Ægisdóttir
The health product company, Lýsi, is among the best-known companies in Iceland, founded in 1938. It builds on a vast product knowledge that has accumulated over the years and ever-increasing research and product development (LÝSI, n.d.-a). New plants were put into operation in 2005 and 2012, equipped with the most advanced equipment available (LÝSI, n.d.-c). With Lýsi's main objective to produce reliable and outstanding products that improve health and quality of life, the company has gained a share of over 50% in the Icelandic market for health products (LÝSI, n.d.-a, n.d.-b). It has also received the President's Export Award, which illustrates the company's success in sales and marketing (LÝSI, n.d.-c). Lýsi now ranks as a global leader in the production and sales, research, and product development of fish oils (LÝSI, n.d.-a).

Hildigunnur Ægisdóttir, research and development director at Lýsi, was interviewed in Lýsi’s offices at Fiskislóð 5-9, Reykjavík. Hildigunnur started as an account manager for Lýsi and has worked for the company for almost three years. Lýsi currently employs approximately 150 individuals, including employees in the production factory in Þorlákshöfn. Hildigunnur says the company has embraced innovation since its establishment, developing new processing methods and becoming a leader in that field.
Therefore it can be claimed that innovation has always been an integral part of Lýsi's operations. Innovation at Lýsi can be observed in at least three areas: in the production process, product development, and quality control. When it comes to the production process, Lýsi places a great emphasis on process optimization. Regarding product development, Lýsi is constantly seeking ideas in relation to new products or various flavoring of established products. The quality control also falls under experiments and development within the organizational chart. There, the focus is on oil processing, detecting undesirable substances in their products, and optimizing specific steps in the process.

4.3.3 Skaginn 3X – Ingólfur Árnason

Skaginn 3X, a versatile company within fisheries and technology, is a merger of two companies: The tech company, 3x Technology, and fish processing company, Skaginn. The company is located in Reykjavík and the two smaller towns of Akranes and Ísafjörður. It focuses on fisheries, engineering, and software. The company's mission is to be a leader in the development and design of food processing, freezing, and chilling solutions. Skaginn 3X boasts an innovative company culture where customer needs and requirements are at the forefront. As Skaginn 3X is deeply rooted in the seafood sector in Iceland, it has considerable experience in supplying solutions for food producers and other customers, helping them to increase their business value (Skaginn 3X, n.d.).

Ingólfur Árnason, the managing director of Skaginn 3X, was interviewed at the company's offices in Akranes. Interestingly, the first thing that loomed in front of the author was the Icelandic Innovation Award, hanging on the wall. Ingólfur has worked for the company since its establishment, five years ago. Prior to that, he was employed by Skaginn, one of Skaginn 3X's predecessors, where he worked for 21 years. Skaginn 3X now has 300 employees. Ingólfur says that Skaginn 3X has always worked towards innovation, considering that the company was established around innovation. Innovation and developing new products and solutions are an integral part of the company and considered as one of the company's vital activities. Ingólfur does not think that the company needs more innovation, as there is now a balance between innovation and the company's capabilities.

4.3.4 MS – Björn S. Gunnarsson

Mjólkursamsalan (MS), a dairy cooperative and manufacturer of dairy products, is a leading company in the food industry in Iceland. It came into being as a merger of
several companies in the dairy industry and has been operating in its current form since 2007. The company receives milk from farmers all over the country and converts it into various dairy products and produces over three hundred types of products. Professionalism in areas such as product development, sales, and marketing, warehousing, distribution, and innovation enables the company to offer consumers popular and fresh dairy products all over the country. According to the company's website, countries around Iceland do not seem to have the same privilege of being offered such a great variety of excellent and healthy dairy products, which is due to decades of invaluable experience that MS possesses. Moreover, the company's results in product development, production, sales, and marketing have resulted in high average milk consumption in Iceland, which is about 60% higher than the average in the EU countries. One of MS's fundamental strengths is that the company has always been in line with the spirit of the times and can quickly identify the need for innovations in the marketplace (MS, n.d.).

Björn S. Gunnarsson was interviewed at the company's office in Bitruháls 1, Reykjavík. He has worked for MS since 2003 and is the company's research and development director. According to Björn, MS operates in an environment where innovation follows the industry, as there are great opportunities to develop and create new products out of milk. Out of the approximately 400 employees of MS, a number of them work exclusively towards product development. Björn claims this is not something every company in Iceland is capable of and perceives the company as being exemplary when it comes to innovation.

4.3.5 SS – Hafþór Úlfarsson
Sláturfélag Suðurlands (SS) is a slaughterhouse cooperative and food producer, slaughtering, processing and selling for their owners, agricultural producers, and general shareholders. The company also imports goods and conducts another trade that strengthens the sale of the company's production. Accordingly, the company's activities are divided into three fields; slaughtering, meat processing, and import (SS, n.d.-b). Showing initiative, prudence, quality, and cooperation between employees is a part of the company policy. The focus of the policy is, among other things, to maintain leadership in the market, showing constant improvements, creating value, and meeting consumer's expectations. Being a leading food company is SS's primary objective, which is in line with the company's purpose and position in the market (SS, n.d.-a).
Hafþór Úlfarsson, head of the SS marketing department, was interviewed at the office located in Fossháls 1, Reykjavík. Hafþór is also connected to the production department, where he carries out planning and price calculations. SS employs around 400 individuals, and Hafþór has been working there for almost five years. Hafþór says innovation has been a part of the company's policy for a long time, long-established before he joined the company. According to Hafþór, the company puts much effort into developing new products and systematically discerning new ways to improve and innovate, as there is a constant demand for new products in this sector.

4.3.6 Genís – Hilmar Bragi Janusson

Genís is a biotech company founded in 2005. Since 2012 it operates a research and development facility in Siglufjörður, north Iceland (Sunna Valgerðardóttir, 2018). The company's main product is the dietary supplement Benecta, which is one of the most progressive innovations in natural supplements in Iceland, but activity in Siglufjörður centers around production and research of dietary supplements from substances found in shrimp (Benecta, n.d.-a; Sunna Valgerðardóttir, 2018). All of the company's manufacturing processes are designed to ensure maximum product quality. The company strives to contribute to the society and development in the health sector. The company aims to deliver increased value to society with sustainable use of resources, resulting in a minimum impact on the environment (Benecta, n.d.-b).

Hilmar Bragi Janusson, the CEO of the company, was interviewed through telephone, due to the company's distant location. Genís employs 30 individuals, and Hilmar has worked for the company for two years. Hilmar stated that everything that the company does is innovation and describes the company as purely science-based as it innovates through its scientific discoveries.

4.3.7 Ölgerðin – Gunnar B. Sigurgeirsson

Ölgerðin is one of the most effective and oldest production companies in Iceland and is also selling many of the world's best-known brands in beverages (Ölgerðin, n.d.-b). It is one of the largest companies in its field of production in Iceland. Its activities can be divided into manufacturing and importing, sales, and distribution. The company's emphasis is on offering only first-class products and high-quality service to customers. New ways are always being sought to enhance the business and accomplish greater efficiency and productivity by acting on opportunities sooner and better than competitors (Ölgerðin, n.d.-c). Ölgerðin has presented four values, which are positivity,
reliability, feasibility, and progress, which, according to the company's website, define the behavior and positive attitude of the company (Ölgerðin, n.d.-a).

Gunnar B. Sigurgeirsson is the company's deputy CEO. The interview with him took place at the company offices located at Grjótháls 7-11, Reykjavík. Ölgerðin currently employs 380 people, and Gunnar has worked there for 12 years. Most of that time, he has been the director of marketing. Gunnar explains how innovation started right at the beginning, in 1913. Tómas Tómasson, the founder of the company, started to produce and sell a malt beverage, branded Egils Malt. The drink gained popularity, so much that still today both the unchanged recipe and the popularity of the drink are undeniably.

Gunnar takes this as an example of the long lifecycle of many of the company's products. He says innovation is a core value at Ölgereðin, which has been thriving on product development, ever since it started back in the early 20th century.

4.3.8 Kjörís – Guðrún Hafsteinsdóttir

Ice cream producer, Kjörís, was established in 1969 in the small town of Hveragerði, south Iceland. Production types at Kjörís were at the beginning few: ice pops and package-ice creams with three flavors; nougat, chocolate, and vanilla. But soon a lot of other products were added. Today, Kjörís produces ice cream not only under their own brand but for other companies and imports some of the most popular ice cream brands in the world. Icelanders are tremendous ice cream lovers, despite the generally cold climate. Kjörís is committed to meeting its consumers’ needs and has been the nation's favorite for many years, according to the company's website. Managers at Kjörís realize that customer satisfaction increases if they offer excellent service, a fair price, and quality products. In order to do so, it requires conscientious, diligent, and satisfied employees. Customer- and employee satisfaction has enabled Kjörís to be a leading company in its field in Iceland (Kjörís, n.d.).

The interview with Guðrún took place at Austurmörk 15, in Hveragerði. She is the company's marketing director but also oversees product development. Kjörís is a family business, and Guðrún has worked for the company for 44 years, since she was a child. She has, however, been in a management position for 28 years. Kjörís currently employs 58 individuals but has recently had to lay off four employees due to the labor market situation. Kjörís has been in innovation since the very beginning, or since her father established the company 50 years ago. Kjörís was, for example, first to introduce ice pops to the Icelandic market, and Guðrún feels the company is strong in product
development. Interestingly, Kjörís is the first and only company in the dairy industry that has survived competition with MS, but MS has extensive anchoring in a large number of producers and broad ownership. Through its product development team, Kjörís brings 20-30 new products to the market annually. These include new products, new flavors, redesigns, and new packaging. To introduce new products, Kjörís targets conditions and timings such as summer when sales are high due to the season and before Christmas when food spending is higher due to the holidays. Although with a history of a stable stream of product innovations, Guðrún feels like there is always a need for more and wonders if Kjörís could be categorized as an innovative company today, in contrast to earlier years in the company's life.

4.3.9 Kassagerðin – Kristján Geir Gunnarsson

The packaging company, Kassagerð Reykjavíkur, was founded in 1932 and is the oldest such company in Iceland. The company started producing wooden boxes, but in 1942 the factory production changed, as it started to produce cardboard boxes and wave packaging instead. In 1954, the company bought a printing factory and began printing on the packaging. Kassagerð Reykjavíkur and Umbúðamiðstöðin, another packaging company, merged under the name of Kassagerðin in 2001. The merger aimed to strengthen the companies and make them better equipped to meet increased international competition. Later on, the printing company Oddi purchased Kassagerðin in the fall of 2008 and focused on printing and packaging (Kassagerð Reykjavíkur, n.d.-b). Now, in 2019, Oddi is in the process of separating the companies again.

Kassagerðin's core is going to be revisited, as it will focus on packaging. Employees at Kassagerðin place great emphasis on showing; responsibility towards their customers, initiative when it comes to product development, ambition and professionalism in their work and respect for their colleagues (Kassagerð Reykjavíkur, n.d.-a).

Kristján Geir accepted to be interviewed on behalf of the company. The interview took place at Kassagerðin, located in Klettháls 1, Reykjavík. Currently, Kristján is the CEO of Oddi and the part of Oddi, which owns Kassagerðin. He has been working for Oddi for three years, two years as CEO of the company. Kristján Geir sometimes refers to Oddi in his discussion on Kassagerðin's approach to innovation, as Kassagerðin has been part of Oddi for a while and still is since the competition authority in Iceland is going over separation contracts. The number of employees was 250 when Kristján Geir
started working at Oddi. Now, since the companies are separating, the number of remaining employees at Kassagerðin will be around 30.

Oddi has always been innovating, or since its establishment in 1942, according to Kristján. The founders were huge pioneers at that time with a strong vision as is reflected in the company's actions, taking big steps and large turns over the decades. When the company was in its prime, it was the most significant printing press in Iceland. Interestingly, Kristján is educated in entrepreneurship and has always been focusing on the thin line between entrepreneurship and established businesses. He feels that innovation can always be increased inside companies and said that an established company needs to behave like an entrepreneur in order to maintain business vitality.

4.4 Discussion on the participating companies
The participating companies are very diverse and fundamentally different in terms of innovation. Kjórís, Lýsi, Ölgerðin, MS, SS, and Kassagerðin are all companies that seem to have had the opportunity to develop certain work processes and can emphasize, e.g., good productivity and quality control. On the other hand, Skaginn 3X, Arctic Trucks and Genís seem to be constantly innovating due to the product/service they are providing. Greiner (1998) put forth a model of organizational growth and argued that companies face different challenges, depending on the phase they are in. He presented five phases that companies go through as they grow. Companies follow certain management practices within each phase, which are followed by management problems that need to be solved in order to continue to grow (Greiner, 1998). By positioning the participating companies against this model, they can be roughly classified into two different phases.

Kjórís, Lýsi, Ölgerðin, MS, SS, and Kassagerðin could be placed in phase 4, which occurs when coordination and efficiency are at the forefront, where procedures have become a priority over innovation. Therefore, the main challenge for managers in such companies is to foster innovative practices. Genís, Skaginn 3X, and Arctic Trucks could be placed in phase 1, which is characterized by creativity and development, where the challenge for managers in such companies is to run the company efficiently (Greiner, 1998). Accordingly, one could assume that the participating companies focus on different management practices, which results in different responses from interviewees. This, however, gives a cross-sectional view of Icelandic companies.
4.5 Data collection
Qualitative research includes several diverse research methods. The primary research methods related to qualitative research are, e.g., ethnography/participant observations, interviews, and focus groups (Bryman & Bell, 2015). The interview is possibly the most commonly used method of qualitative data collection and can be directed at the focus of the research and its associated research question (Bryman & Bell, 2015; Burnard, 1994). An interview is an inter-change of views between two individuals discussing a specific topic (Kvale, 1996). The author decided to choose this method of data collection, based on Kvale's (1996) theory, where he points out the clear benefit of unfolding interviewees' expressions, views, and opinions.

By conducting interviews rather than, e.g., participant observation, the author could gain information about past management actions within the participating companies. Also, the author had more flexibility to work on other aspects of this study since it does not require an extended period of data gathering, as discussed by Bryman & Bell (2015). However, the author realized in advance that with this method, he would be less likely to obtain information about deviant and hidden activities and matters that interviewees take for granted, as Bryman & Bell (2015) warned against.

The gathering of empirical data from all nine interviewees was based on semi-structured interviewing. A semi-structured interview guide (Appendix, A) was created, including 27 questions, categorized into three sections; general, conceptual framework, and managerial implications. The purpose of semi-structured interviews is to obtain and interpret the interviewees' descriptions of, for example, their employing company (Kvale, 1996). Semi-structured interviews are used when the interviewer obtains information by conversationally asking the interviewee questions. With this method, interviewees are offered the chance to explore and emphasize on essential issues that are not explicitly stated in the interview guide (Clifford, French, & Valentine, 2010). This type of interview allowed the author to give interviewees a brief introduction on the topic of the study and critically ask relevant follow-up questions, as discussed by Kvale (1996).

After the participant was made clear about the objective of the thesis, the interview began. All interviewees were asked for permission to record the interview and to state their name and that of the company. Bryman & Bell (2015) suggest using the same research instruments, for example, an interview guide, when carrying out multiple
empirical works to aid precise exposure to differences and similarities between cases. Accordingly, the author used the same semi-structured interview guide (Appendix, A) in all nine interviews. However, as can be expected, the author asked the interviewees different follow-up questions and sometimes skipped questions stated in the interview guide if interviewees had answered them earlier in the interview. The interview was done in Icelandic, as the study is done in Iceland with Icelandic interviewees. Even though this study is written in English, the author found it essential to conduct the interviews in Icelandic in order to eliminate any language barriers in the conversations.

All but one interview were conducted face-to-face. But as they are not always easy to set up and organize (Burnard, 1994), one interview had to be through telephone. That was with Hilmar Bragi Janusson from the company Genís, located in the North of Iceland. This approach is widely used to conduct interviews when interviewees are located far from the author (Burnard, 1994). The author had realized in advance that certain limitations follow interviews conducted through telephone. Indeed, telephone interviews are likely to be at a faster pace than face-to-face interviews. Also, it has been argued that interviewees provide less detailed answers through telephone than they would face-to-face (Marcus & Crane, 1986). As the author and interviewee were not face-to-face, all information was provided through spoken language at the exclusion of the additional information often provided through body language and facial expressions. Therefore, identifying the interviewee's signs of unease or puzzlement towards specific questions is not a possibility. Additionally, it is more challenging to achieve rapport with the interviewee through telephone interviews, which has been argued to be very important. Therefore, getting interviewees to show persistence and willingness to participate in the interview can be challenging (Bryman & Bell, 2015). The author's experience from this interview is in line with previous suggestions, as it was by far the shortest and the least in-depth of all interviews. Despite a short time and repetition of questions due to poor telephone connection, the author managed to extract valuable insights from the interview.

The author thanked all interviewees for their participation at the end of all interviews. All the interview recordings were then transcribed verbatim and analyzed through deductive analysis, which the next chapter will go into in further detail.
5. Results

In this chapter, results from each participating company will be presented with respect to the conceptual framework. The framework consists of the following components: Inspiration, innovativeness, risk-taking, proactiveness, and learning. Subsequently, the managerial implications theme from the semi-structured interview guide (Appendix, A), will be illustrated.

5.1 Inspiration

To understand the participating companies' work environment, and how it possibly fosters and catalyzes inspiration, questions were asked regarding strategy, culture, communications, project allocations along with how the participating companies support employees and provide them with resources, recognition and, autonomy.

Arctic Trucks

Arctic Trucks' environment and culture encourage innovation, as meeting customers' requests is a driving force within the company. It means constantly doing new things. Arctic Trucks finds itself also obligated to make things more cost-effective. But however, compelled to respond to customer needs. Emil noted that the company also innovates in order to cope with challenges in the external environment. These challenges are regulations and taxes regarding, e.g., Co2, batteries, and diesel.

Arctic Trucks has not been able to focus on giving employees recognition or praise after the economic collapse, which however indicates that recognition or praise has previously been in the form of money.

When it comes to project and resource allocation, the workshop staff is considerably challenged as they handle many projects. However, project allocations mainly depend on how qualified employees are for each project, or how they are "made from scratch," according to Emil.

Emil mentioned that employees get quite a lot of scope for autonomy, but they need to achieve some success regardless of how they come about it. The company is able to offer employees autonomy because it is dealing with a range of diverse projects with few people in every project.

In consideration of Arctic Trucks' emphasis on communication between diverse
employees, Emil stated that in Iceland, communication could be characterized as being too flat. That is because sometimes it is unclear who is responsible for what and communication problems between departments occur now and then. Despite that, Arctic Trucks is one team, where there is respect between everyone, according to Emil.

**Lýsi**

Innovation is well integrated with the company's strategy and culture, according to Hildigunnur Ægisdóttir, research and development director at Lýsi. Hildigunnur stated: "It is just part of the department's culture to bring new products at certain intervals... and staying fresh." Their innovative activities are also a result of external factors and pressure, such as feedback from end-users.

Lýsi does not give recognition or praise to employees for new products or creative contributions, as the company does not make a big deal out of new products. Hildigunnur stated, laughing: "It is not like it is a great ceremony when it is done."

The project and resource allocation at Lýsi is connected to each job title. However, Hildigunnur frequently gathers her co-workers to brainstorm ideas, even for projects that are not necessarily a part of their job descriptions. Hildigunnur declared: "It does not really work having me... alone in my office corner, developing something."

Employees at Lýsi do get room for autonomy, according to Hildigunnur. They are offered freedom, responsibility, and guidance when it comes to working things out quickly.

In their efforts to focus on communication and teamwork between diverse employees, Lýsi has experimented with several ways. They have, e.g., gathered people from different departments when a new product is on the company's agenda and arranged meetings, where the department for consumer products and the quality control department follow up on different issues.

**Skaginn 3X**

At Skaginn 3X innovation is well-rooted in its overall strategy as the company's origin lies in innovation and finding new solutions. This is also apparent in the company's culture. Ingólfur Árnason, managing director of Skaginn 3X, stated on innovation: "There would be something unusual going on if we were not innovating." Skaginn 3X is operating within the Icelandic fisheries industry, which involves restrictions such as
quota systems followed by the need to improve and to constantly do better. This need is the company's machine and oil, according to Ingólfur. It pushes them to do better, develop, and create value in all aspects of the industry.

Skaginn 3X does not give any appraisals or acknowledgment for successful ideas or creative contributions within the company, as they are considered as a normal thing, according to Ingólfur.

When the company undertakes development projects, Skaginn 3X does not look into the organizational chart; instead, it finds the individuals possessing the right talents for the task. Respective employees then engage in teamwork as part of their job.

According to Ingólfur, employees are provided with autonomy and freedom, as they have the opportunity to bring their ideas to the various solutions.

The company places great emphasis on communication and teamwork between the various employees. This can be observed in how they focus on interdisciplinary approaches to reach all areas inside the company.

**Mjólkursamsalan (MS)**

Björn Sigurður Gunnarsson, research and development director at MS, says that innovation is thoroughly anchored and integrated into the company's strategy and culture. The strategy and culture are based on creativity and bringing, 20-30 new products to the market every year, which is the company's foundation and reason for being alive. As the company's raw material, milk, can be perceived by some to be a traditional and even a rather dull ingredient, the company needs to constantly introduce to the market new, modern, and up to date products, according to Björn.

Employees do not get direct rewards for successful ideas or creative contributions. Ideas are frequently generated through brainstorming meetings and from there, go through a specific process. As the idea develops, it can be hard to identify who owns each idea or part of it, as many people bring value and spin on each idea.

Resource and project allocations seem to be unsystematic at MS. Björn stated: "It is perhaps not systematic how... how things are allocated." Employees in the research and development department are constantly brainstorming, while all employees within the firm only go to one brainstorming meeting a year.
Although Björn could not answer for the whole company, he maintains that employees in the research and development department are granted autonomy and freedom. They need to work within a certain structure but are offered flexibility in work. Björn thinks that MS managers are keen to implement modern management practices and that they value autonomy and freedom. However, it concerned him that MS is a big company where a routine approach can be dominant.

According to Björn, there is active communication and teamwork between diverse employees of MS as the company places great emphasis on activating employees and having everyone involved.

**Sláturfélag Suðurlands (SS)**

When asked how innovation is a part of the company's strategy and culture, Hafþór Úlfarsson, marketing director at SS, replied that the company encourages employees to come up with new ideas. He stated: "I think perhaps that we do this better than many... you know, everyone has the opportunity to bring their ideas forward."

SS does not formally recognize or praise employees for successful ideas or creative contributions. Hafþór mentioned that they had for example not set up an idea bank, and wonders if this is something they could improve on.

According to Hafþór, SS tries to distribute product development projects appropriately but admitted that things are not necessarily evenly divided. These projects are mainly allocated to the factory manager, who has to manage tests and developments of new products in collaboration with the foreman of the relevant department. Therefore, the most significant responsibility lands on him. When it comes to resources, the group is provided with extra help from both internal employees and external parties that give feedback on the product development results.

Employees are provided with ample room for autonomy and freedom as they can work on their projects at their convenience. Hafþór stated: "There is no heavy micromanagement going on..."

The structure of the development group at SS sheds light on the company's emphasis on communication between diverse employees. It includes employees from the production, sales, and marketing departments. According to Hafþór, the group spans all the areas needed to bring a new product to the market.
Genís
Innovation is at the company's core and the reason for its foundation. Therefore, Genís's business strategy is entirely intertwined with innovation. Hilmar Bragi Janusson, CEO of Genís, stated: "The whole company policy is aimed at it."

Creative contributions and successful ideas inside Genís are not specially recognized or praised as innovation is perceived as a normal business practice within the company.

Projects and resources are allocated on a project basis. When specific programs and projects are approved, employees are provided with the resources needed. Moreover, employees are given the necessary autonomy and freedom, as long as they work within an approved project frame.

The company's efforts to focus on communication and teamwork between diverse employees can be seen in their colocation approach. Employees sit and work together in one space, which is a fundamental aspect, according to Hilmar.

Ölgerðin
Innovation is a part of the company's DNA, where the setup and culture focuses on and requires coming up with new products. Early 2019, considerable strategic changes were made that explicitly aimed at creating new products. A specific "hatchery station" was created. Ölgerðin focuses on creating a culture where everyone is a participant in product innovations. In this regard, Gunnar mentioned that if employees are not on board with new product innovations, the company can cancel the whole process.

There is no specific channel when it comes to providing employee recognition or praise, in any form, for successful ideas. Gunnar talked about the main reason behind that, which is the evolvement of an idea. Many individuals participate in developing an idea, which makes it hard to give one specific employee recognition or praise. Gunnar declared lightheartedly: "So... there is no such thing as a pat on the back for the person who gets the idea."

Regarding project allocations, the company has two employees dedicated to product development. However, the routine always wins; these employees have more urgent matters to take care of, according to Gunnar. When it comes to resource allocations, Gunnar talked about the team behind the hatchery station being able to utilize resources inside the company to invest in product innovation.
In general, the company offers employees autonomy in order to come up with ideas and work on them. Gunnar stated: "This is an underestimated factor... product development is always tomorrow's mission... it can always wait, and that is what companies are failing in." He stressed the importance of autonomy though and added that contrary to routine, product development falls under artistic creativity, which he says can go in many directions.

The "hatchery station" illustrates how Ölgerðin focuses on communication between diverse employees. It is conceived to bring together different employees like the sales manager, brand manager, managing director, and Gunnar himself to create a versatile innovation team.

**Kjörís**

At Kjörís, innovation is integrated with the culture and business strategy as a whole, according to Guðrún. Strategy formulation meetings are conducted every autumn. There, managers can decide whether they have room to pursue innovative projects. The company also organizes annual meetings for all employees, where the main focus is usually on product innovations.

When it comes to giving praise or acknowledgment to employees behind successful ideas and products, Guðrún admitted that finding the right person to praise can be difficult. She stated: "Sometimes we have praised the wrong person..." That is why they try to praise employees as a whole.

Regarding product allocations, Guðrún talked much about the dairy specialist at Kjörís, which is the doer in the product development team, as he executes and develops most of the ideas by himself.

Kjörís employs four dairy specialists that work in a team, where they all have the freedom to bring their own ideas forward. Guðrún took an example of the dairy specialist, "the doer" in the product development team. He was, e.g., able to work autonomously after the company decided to develop new ice pops, and he enjoyed creating all kinds of flavors that he wanted to develop further.

Kjörís emphasizes teamwork and communications between diverse employees. This can be seen, for example, in the product development team, which includes Guðrún, the managing director, the dairy specialist, the purchasing director, the sales director, and
the production director. Inducing to good communication is the fact that Kjörís is a small company. All departments are small, which makes the communications within the company easy. There is an open-door policy in the company, and the communication lines are very short.

**Kassagerðin**

Kristján Geir Gunnarsson, CEO of Kassagerðin, talked about the importance of the company's DNA when asked about how innovation is integrated with the company's strategy and culture. The company's values and DNA are those that drive employees to work towards innovation and creativity. Kristján realizes how culture is actually a strong force and often states: "If you are going to survive, you need to develop. If you stop, you die." Accordingly, Kristján constantly encourages employees to come up with ideas.

When asked about how praise and recognition is provided for successful ideas or creative contributions, Kristján talked about meetings that are held at the end of each day. Kristján stated: "Rewards are never given in the form of money, but more in recognition and by encouraging people on their path."

Projects are allocated according to employees' job descriptions. However, Kristján has been focusing on creating an atmosphere where employees are willing to help each other, irrespective of resources allocated.

Regarding autonomy, employees at Kassagerðin have room for autonomy within a specific setup as Kristján is currently working towards creating a new culture that fosters innovation.

The company focuses on employee teamwork and has established an interdisciplinary approach in communication between them. Kristján believes that a team is stronger than each individual, and at the beginning of his employment at Kassagerðin, he started working towards conveying that vision.

Regarding innovation, it can thus be said that it is a component of all participating companies' strategy and culture, which is demonstrated in, e.g., the companies' focus on developing new products, creativity and meeting customer's requests. However, when it
comes to giving employees recognition, the majority of the companies seem to fall short. That is because new ideas are often considered as a regular business practice, and many employees are involved in idea generation. The majority of the participating companies also seem to fall short when it comes to project allocations, as they appear to be unsystematic. However, autonomy is considered as an essential factor in all participating companies, where employees get to work autonomously, usually though within a certain frame. Furthermore, the emphasis on teamwork and communication between diverse employees is evident in all participating companies. Table 3 on the next page shows an overview of results from the inspiration dimension.
### Table 3 - Overview of results from the inspiration dimension

<table>
<thead>
<tr>
<th>Participating companies:</th>
<th>Arctic Trucks</th>
<th>Lýsi</th>
<th>Skaginn 3X</th>
<th>MS</th>
<th>SS</th>
<th>Genís</th>
<th>Olgerðin</th>
<th>Kjörís</th>
<th>Kassagerðin</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inspiration</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How is innovation intertwined with the company's culture and strategy?</td>
<td>Meeting customer's requests is the company's driving force.</td>
<td>The company is constantly developing new products.</td>
<td>The company's origin lies in innovation and finding new solutions.</td>
<td>The company's focus is on creativity and bringing new products to the market every year.</td>
<td>The company encourages employees to come up with ideas.</td>
<td>Innovation is at the company's core and the reason for its foundation.</td>
<td>Innovation is a part of the company's DNA. The company's setup and culture focuses on and requires coming up with new products.</td>
<td>Innovation is the focus of the company's main meetings.</td>
<td>The company's values and DNA are those that drive employees to work towards innovation and creativity.</td>
</tr>
<tr>
<td>How are employees given praise or recognition for successful ideas?</td>
<td>Not given: It has not been the company's focus after the economic collapse.</td>
<td>Not given: The company does not make a big deal out of new products.</td>
<td>Not given: Successful ideas are considered as a normal thing within the company.</td>
<td>Not given: The company finds it hard to see who owns each idea.</td>
<td>Not given: Innovation is perceived as a normal business practice within the company.</td>
<td>Not given: The company finds it hard to see who owns each idea.</td>
<td>Given: The company tries to praise employees as a whole as finding the right person to praise can be difficult.</td>
<td>Given: The company gives praise and recognition at daily meetings by encouraging employees on their path.</td>
<td>Projects are allocated according to employees' job descriptions.</td>
</tr>
<tr>
<td>How are projects allocated to employees?</td>
<td>The workshop staff is considerably challenged. Project allocations mainly depend on how employees are made from &quot;scratch.&quot;</td>
<td>Employees are frequently gathered for projects that are not necessarily a part of their job descriptions.</td>
<td>The company does not look into the organizational chart; instead, it finds the individuals possessing the right talent for the right task.</td>
<td>Employees in the research and development department are challenged more than other employees within the company.</td>
<td>The company allocates projects on a project basis.</td>
<td>There are only two employees in project development and more urgent tasks, unrelated to product development, are a priority.</td>
<td>The dairy specialist at Kjörís executes and develops most of the ideas by himself.</td>
<td>Projects are allocated according to employees' job descriptions.</td>
<td></td>
</tr>
<tr>
<td>How are employees granted autonomy and freedom?</td>
<td>They need to achieve some success regardless of how they come about it.</td>
<td>They are offered freedom, responsibility, and guidance when it comes to working things out quickly.</td>
<td>They have the opportunity to bring their ideas to the various solutions.</td>
<td>They need to work within a certain structure but are offered flexibility.</td>
<td>They can work autonomously as long as they work within an approved project frame.</td>
<td>They are provided with autonomy in order to get ideas and work on them.</td>
<td>The dairy specialists can bring their ideas forward and freely develop them further.</td>
<td>They get room for autonomy within a specific setup.</td>
<td></td>
</tr>
<tr>
<td>How does the company emphasize communication between diverse employees?</td>
<td>By having flat communications lines.</td>
<td>By frequently gathering people from different departments when it comes to product development.</td>
<td>By focusing on interdisciplinary approaches to reach all areas inside the company.</td>
<td>By focusing on activating employees and having everyone involved.</td>
<td>By having a development group, which spans diverse areas within the company.</td>
<td>By following a colocating approach, where employees sit and work together in one space.</td>
<td>By having a &quot;hatchery station,“ which is conceived to bring together different employees.</td>
<td>By having an open-door policy, short communication lines and the product development team, which includes diverse employees.</td>
<td>By following an interdisciplinary approach towards communications between employees.</td>
</tr>
</tbody>
</table>
5.2 Innovativeness
With the purpose of assessing the innovativeness of each participating company, the interviewees were asked questions regarding the company's support when it comes to experiments and resources as well as their tendency and willingness to pursue opportunities, create innovations for customers and depart from the current situation.

Arctic Trucks
The company supports and participates in creative processes, experiments, and new ideas, but there has to be some business plan behind every new idea, according to Emil. In this regard, Arctic Trucks follows a centralized path. Unfortunately, this approach has been restricting creativity inside the company. However, there is often a scope in the different countries of operation to make independent decisions, which is a much smoother process.

When asked about the willingness to depart from the current situation and pursue new opportunities and ideas, Emil said that the company has been, if anything, too willing. To give an illustration of pursued opportunities and ideas, Emil talked about a few projects, such as bringing the grandson of Ernest Shackleton to the South Pole, finding out the best way to cross fissure areas and outlining the logistics for a high profile movie.

Shedding more light on the company's efforts in developing creative solutions for its customers, Emil also mentioned how they are continually trying to innovate in areas like limiting fuel consumption. Their response has been to experiment with wind- and solar energy cars.

Lýsi
The company supports and participates in creative processes, development of new ideas and experiments as it provides employees easy access to the people within the company. Employees can receive help from their colleagues when they are applying for grants and tax deductions for their product development projects. However, before new ideas within the consumer product department are provided with support and resources, they have to be discussed thoroughly with employees within the department and with Lýsi's main distributors. Research on cost and feasibility is also conducted.

Lýsi is willing to depart from the current situation and seize new opportunities and
ideas, as the mentality within the company is open to doing something new. However, the company has to operate within a certain frame because new products are limited to the budget, production processes, and packaging at hand.

Lýsi’s focus is currently on people's needs when it comes to creating new and creative solutions for customers. Hildigunnur gave an example of one project that they have been researching. There they are focusing strictly on a person's lifestyle and needs in today's world, where convenience is at the forefront.

**Skaginn 3X**

Skaginn 3X supports new ideas and experiments related to them as it needs to continuously seek new ideas and better solutions to strengthen its position on the market. The company provides support by picking out the human resources on an individual project basis and allocating a time frame.

When asked about the willingness to depart from current practices and seize new opportunities and ideas, Ingólfur answered: "Well, I do not know... I would not say that we are particularly willing to venture into new opportunities that are beyond our core business." He stressed that the company is not seeking completely new and unknown paths as it tries to improve constantly in areas it is good at. An example of that is a new cooling technology called Sub-chilling, patented by the company. With this method, fish is chilled down to a temperature colder than ice, therefore making ice unnecessary. Here customer's benefits are twofold, financial, and environmental as it reduces the size of shipping units and freight costs and increases product lifetime.

**Mjólkursamsalan (MS)**

MS is inclined to support new ideas and undertake experiments, as noticeable in the research and development department, which includes four talented and experienced employees. Having set up a special research and development department, MS also ensures resources to support new ideas and experiments related to them, according to Björn.

MS is, to a considerable degree, ready to depart from the current situation and pursue new ideas and opportunities, even though they may sometimes seem somewhat contrary to the interest of farmers who own the company. An example is the development of vegan products. Björn stated:
It is a total turnabout because vegan is more often than not for those who do not want milk… so one could say that our owners are open-minded… so open-minded as to see that it does not work for MS to focus only on the product they are selling us.

Overall, Björn perceives MS to be a very open-minded company when it comes to creating new products for consumers. MS is very accessible and open to comments, and the company engages directly with consumers through social media.

**Sláturfélag Suðurlands (SS)**

SS is open towards supporting new ideas and experiments related to them. SS receives visits frequently from external parties with new ideas, and in most cases, the company is open and ready to assist. However, the number of ideas is usually higher than the company can cope with. Therefore, ideas and possible benefits need to be examined in detail to decide which of them is most feasible. In general, ideas that have potential in the market are then provided with support and resources, according to Hafþór.

When it comes to departing from the current situation and embracing completely new ideas, Hafþór talked about the company's participation in veganism. Vegan meals are now part of the company's leading brand name, 1944, for ready-made meals. He also mentioned that as long as the demand for vegan food is increasing, SS will be willing to participate in that sector.

SS strives to listen to consumers and change in line with the spirit of the times. Customers frequently send suggestions that are registered and kept on file. Repeated comments are taken up for special consideration. Hafþór took an example of the company's efforts to respond to customers' ideas when the company tried to develop more environmentally friendly packaging. However, the company's suppliers found out that the environmental impact of the changes would be negative.

**Genís**

According to Hilmar, Genís has a high tendency to support and participate in creative processes, innovations, new ideas, and experiments. Genís invests in new ideas and experiments related to them with the necessary resources, if they are in conjunction with already approved projects.

However, the company is not willing to depart from the current situation to pursue new
opportunities. Hilmar stated: "In our situation, the subject matter is much more in narrowing down and focusing on the opportunities that already exist." He added that Genís is not a typical old company; it is more recently established.

The company's efforts in finding new and creative solutions for consumers can be seen in their production processes and all their latest solutions that, according to Hilmar, are worth millions of krónas.

Ölgerðin
The company is willing to support new ideas and innovate accordingly, as Ölgerðin's business plan states that 5% of its revenue should be earmarked for product innovations. In this regard, Gunnar took an example of their new collagen drink, Collab, which can be seen as an example of the company's inclination to depart from the current situation, a new direction for the company.

Ölgerðin strives to listen to their consumers to the best of their abilities in order to develop new products. The company, for instance, conducts focus groups and interviews and does research and data analysis to see what is popular. The new flavor type of carbonated water Kristall is, for example, a product that is wholly based on consumer feedback.

Kjörís
One could say that ideas and related experiments within the company are provided with support in the form of trust. Guðrún does, for example, not like the vegan ice cream but realizes that she is not the one to judge. She trusts her employees that are wiser on the subject.

MS's vegan ice cream is an example of the company's inclination to depart from the current situation and embrace new ideas. They saw a growing demand for vegan products and decided, after some consideration, to ride the wave.

The company's focus is on customers' needs, and introducing something new and fresh for them is apparent in the company's anniversary ice cream edition and vegan ice cream. With the anniversary ice cream, the company decided to create a product with all the ingredients Icelanders love. When it comes to the vegan ice cream, Kjörís talked to vegans in Hveragerði, to get feedback for the perfect product for this market segment.
**Kassagerðin**

Since the various operations of Oddi and Kassagerðin are in the process of being separated into new entities, Kassagerðin has more opportunities to partake in innovation and new ideas, often through collaboration with vigorous foreign parties. New ideas and their development are provided with support when they have gone through a specific funnel, which is a part of the product development process. This funnel filters out ideas that do not match the company's strategic focus, with remaining ideas taken into further consideration.

Kassagerðin is, though, not very open to depart from the current state to pursue ideas and opportunities that are not related to their operations. It is narrowly focused due to its position in its presence, according to Kristján. He pointed at a bag on the floor with work clothes. There had been some considerations about taking work clothes into their product range, but Kristján was totally against it. His main argument is that Kassagerðin has not been able to fully master its core business activities as the separation between Oddi and Kassagerðin is still in process.

Kassagerðin's emphasis is thus on finding new and creative solutions for customers within their core activities. This can be seen in the company's development of a new product that could eliminate the use of styrofoam in the fishing industry. This new product is a cardboard box that holds water but otherwise has the same features as styrofoam boxes. Styrofoam is a threat to nature, as it is very hard to recycle. Therefore, with their new product, their customers can be more environmentally friendly.

As can be seen from the above, all participating companies provide support to new ideas and related experiments to them. However, the majority of the participating companies evaluate each idea first. This support comes in the form of, e.g., resource allocations, easy access to experienced colleagues, assistance, and collaboration with external parties. The majority of the companies were ready or at least open to undertake projects outside their core activities, such as producing vegan products or collagen drinks. Moreover, all companies emphasized the importance of meeting customer needs by creating novel and innovative solutions. Table 4 on the next page shows an overview of results from the innovativeness dimension.
Table 4 - Overview of results from the innovativeness dimension

<table>
<thead>
<tr>
<th>Participating companies:</th>
<th>Arctic Trucks</th>
<th>Lýsi</th>
<th>Skaginn 3X</th>
<th>MS</th>
<th>SS</th>
<th>Genis</th>
<th>Olgerðin</th>
<th>Kjörís</th>
<th>Kassagerðin</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Innovativeness</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How does the company support and participate in creative processes, development of new ideas, and experiments?</td>
<td>By providing resources if ideas are backed up by viable business plans.</td>
<td>By providing employees easy access to the people within the company, which can help employees apply for grants and tax deductions for product developments. Research on cost and feasibility is conducted on each idea first.</td>
<td>The company picks out the human resources on an individual project basis and allocates a time frame.</td>
<td>By having a special research and development department, with four talented employees.</td>
<td>By assisting third parties with their ideas. Ideas and possible benefits need to be examined in detail first.</td>
<td>By investing in new ideas and experiments related to them with the necessary resources, if they are in conjunction with already approved projects.</td>
<td>With the company's business plan, which states that 5% of its revenue should be earmarked for product innovations.</td>
<td>Through trust that managers give to employees.</td>
<td>Through collaboration with vigorous foreign parties when ideas have gone through a specific evaluation funnel.</td>
</tr>
<tr>
<td>How is the company willing to depart from the current situation and seize new opportunities and ideas?</td>
<td>Willing: The company has been undertaking projects such as outlining the logistics for a high profile movie.</td>
<td>Willing: The mentality within the company is open to doing something new, but they have to work within a certain frame.</td>
<td>Not willing: The focus is on improving in areas that the company is good at.</td>
<td>Willing: The company is developing vegan products.</td>
<td>Willing: The company is participating in veganism with its 1994 brand.</td>
<td>Not willing: The company's focus is on the opportunities that already exist and narrowing down.</td>
<td>Willing: The company is producing collagen drinks.</td>
<td>Willing: The company is producing vegan ice creams.</td>
<td>Not willing: The company is narrowly focused due to its position in its presence.</td>
</tr>
<tr>
<td>How does the company focus on creating new and creative solutions for customers?</td>
<td>By continually trying to innovate in areas like limiting fuel consumption.</td>
<td>With the company's new project, which focuses strictly on a person's lifestyle and needs in today's world.</td>
<td>With the company's new cooling technology called Sub-chilling as customer's benefits are twofold, both financial and environmental.</td>
<td>By engaging directly with customers through social media.</td>
<td>By listening to consumers as repeated ideas from customers are considered.</td>
<td>With the company's production processes and all its latest solutions.</td>
<td>By listening to the company's customers and see what they like. The new flavor type of carbonated water Kristall is, e.g., based on feedback from consumers.</td>
<td>By creating products with ingredients, the company's customers love and obtaining feedback from them.</td>
<td>With the company's new cardboard box, as its customers can be more environmentally friendly.</td>
</tr>
</tbody>
</table>
5.3 Risk-taking
In the interest of evaluating to what extent the participating companies tend to be risk-seeking or risk-averse, they were asked about their inclination to pursue uncertain projects and the execution of such projects as well as how they take on risks.

Arctic Trucks
Emil explained how he had repeatedly taken chances with uncertain projects over the years. The solar car project, which revolved around driving Arctic Trucks vehicle on solar energy on the South Pole, illustrates how Arctic Trucks is willing to risk the company's resources in uncertain projects. Emil talked about this project as being something that the clients did not know much about. Despite that, Arctic Trucks decided to support this project and do some experiments in Iceland. At first, this project completely failed; still, Emil was ready to provide the project with more support, both moral and resource-wise. After more work and a trial run, the project worked out, though in a slightly different way than intended. Emil said: "...this was all very doubtful."

Today, Emil says that Arctic Trucks is taking fewer risks. Those taken can be divided into truly life-threatening risks out in the field where the company vehicles are deployed, and financial risks to the company. The company minimizes life-threatening risks by preparing as well as possible, seeking information and choosing the optimal methodology for each journey. The company always tries to minimize financial risks as they cannot buy insurance for their activities. The company tries to set all deals up in such a way that risk is minimized as much as possible. To give an example, Emil explained that they try to generate enough income from other projects to cover the one that fails. He said: "You know, just trying to create your own kind of insurance." On a final note, Emil says he puts thought, time, effort, and input into uncertain projects, but there is a limit. Especially when clients do not know what they are asking for. That is where Emil chooses to opt-out.

Lýsi
Lýsi is quite open to engaging in projects that have the chance to fail, and Hildigunnur even stated: "...everything has a chance to fail." Hildigunnur gave an example of two risky projects; the establishment of the company Lipid Pharmaceuticals and the website Lýsi life. Lipid Pharmaceuticals was created within Lýsi and focused on suppositories for children. Lýsi life is the company's sales site, a rather extensive project, according to
Hildigunnur. It was one of the most significant projects Lýsi has worked on. They created three new products for the website and made a brand manual in collaboration with a Danish firm as well. Nevertheless, the company has not been actively undertaking uncertain projects that are at the limit of being feasible or completely radical.

Conducting business cases and implementation plans is critical in handling uncertain projects. Lýsi does research on certain markets along with an assessment of the product's survival likelihood in these markets. In addition to that, all costs are calculated, where every product needs to meet a minimum sales requirement, both in the Icelandic and foreign markets.

**Skaginn 3X**

Skaginn 3X frequently partakes in projects that may end up being unsuccessful or totally fail. Ingólfur stated: "We do a lot of testing, and we are always trying something new... and sometimes it just fails, and sometimes it is a success, it is just a part of the process." Ingólfur took the example of a project where the company collaborated with outfitter and fish processor company HB Grandi, 3-4 years ago. HB Grandi was in the process of developing new vessels and wanted to make a reality of the idea of having an unmanned flotilla. They sought collaboration with Skaginn 3X to develop the necessary automatic operating system. It was a massive project in terms of scope and costs. Even though HB Grandi co-financed the project, Skaginn 3X suffered considerable losses.

Skaginn 3X often takes on uncertain projects in collaboration with manufacturers and tries to solve tasks and develop new solutions. The company focuses on long-term financial benefits and strives to correctly evaluate the potential for success. If that potential is deemed high, the company goes into collaboration with the customer.

**Mjólkursamsalan (MS)**

The company's willingness to pursue opportunities that can fail can be seen in the company's driver, which is product development and innovation. Here they aim for a planned number of innovations each year. Managers are aware that success is never certain, and that risk is inherent to every innovation. Björn discussed the fact that 90% of product development and new products worldwide, fail, even though that does not necessarily apply to the Icelandic market.
Through its company culture, MS is very open-minded towards opportunities and ideas. However, risks are not taken lightly. Uncertain projects at the company go through a rigorous evaluation process. It includes evaluation of the market potential, scenario planning, cost calculations, and sales projections. Usually, Björn added, managers are more willing to partake in uncertain projects if they do not require extensive financial resources. He explains that due to the nature of the industry, MS needs to have discipline when it comes to high-risk investments and operational risks. Accordingly, should evaluation show high risk and high costs, the company would most likely dismiss such an idea.

**Sláтурfélag Suðurlands (SS)**

"We do pretty much of that," said Hafþór lightheartedly, when asked about the company's participation in projects that have the chance to fail. He took an example of the readymade food brand 1944, where the goal is to develop 3 to 4 new dishes on an annual basis. He stated:

> It is impossible to tell whether these dishes will work out… but it is something we think is just a part of the process, that something just has to fail… and we have to spend a certain amount of money on this, you know.

When it comes to the 1944 dishes, the company tackles risks by testing the market for a new recipe by presenting a dish of the month. Reactions from the market will then dictate whether it will go into long-term production. As the 1944 dishes are an established product and cost is roughly known, cost calculations and business cases do not need to be conducted, according to Hafþór. Generally, the company does not undertake projects that require high investment in new machinery and where the market is unknown. Hafþór declared: "So you know, there are still limits to how far we can go in innovation, in a way."

**Genís**

"This is often thought of as courage... they have full courage to do so." Was Hilmar's response when asked to what extent managers were willing to sacrifice the company's resources in projects that have the chance to fail.

When faced with uncertain projects, Genís makes risks and costs assessments as well as business cases. In general, if the cost turns out to be manageable, Genís will participate in a project. However, business cases vary depending on what part of the company they
belong to. If the project falls under the production department, then the focus is on benefits, optimization, and quality. However, when it comes to the research side, then the focus is on the scope and whether it interferes with other programs.

Ölgerðin
One of Ölgerðin's values is progress, which illustrates how the company is constantly striving to be ahead of their competition. Gunnar stated: "We attempt to do things sooner... and better than the competition, which means that we dare to take risks." It was a big deal to produce Collab and difficult to predict how it would be received in the market. Gunnar says it was clear and simple betting. He talked about how they can allow themselves to make such bets and stated: "If it does not work we just take it off the market and we are not dwelling on that you know... we just keep on moving." Gunnar says that one out of 20 new products will still be on the market after two years. Therefore, Ölgerðin is aware of the fact that no matter how much research is done, projects like Collab have a chance to fail. However, now, they are looking at investing in machinery that will simplify the production process of the drink.

When assessing the viability of new ideas, Ölgerðin conducts a feasibility study. This study is implemented at every level of the company's product development to pick out ideas that have market potential. It includes aspects such as the gathering of marketing- and sales data and information on foreign markets. In many instances, Ölgerðin has to backtrack and exclude ideas due to unforeseen difficulties in, for example, branding, production, expensive or non-existent raw material, laws, and regulations.

Kjörís
Every year, the company conducts projects that fail, be it before or after introduction to the market. Guðrún estimates that out of 10 new products, one is lucky if one product survives. But they sometimes succeed against odds. It is for example widely estimated, in colder climates, that marketing new ice creams in January is a recipe for failure. However, Kjörís has been introducing new products every January for 15 years. The company has been in a situation where investment was made in new machinery, and the product behind it flopped. However, Kjörís is considering developing a new product that requires engine change and is aiming to introduce it to the market this Christmas or the next one.

When it comes to handling risky projects, they listen to feedback from colleagues and
customers, "marinate" ideas that are uncertain for 1-2 years and try to see if the market has changed or if new solutions are available. They also utilize the profits of established products to experiment and innovate.

Kassagerðin

The new waterproof cardboard boxes intended to replace styrofoam packaging show that Kassagerðin is willing to sacrifice resources in projects that have the chance to fail. The company has spent 14 months of salary for one employee, exclusively devoted to that project. Kristján stated: "You know... it is more likely than not that this fails."

The company is operating in a market that knows nothing but styrofoam when it comes to exports. However, they assess the risk to be lower than the profits of seeing this project through. Kristján talked about the fact that 8 out of 10 ideas fail, but the two that survive are what matters in the survival of the company.

Kassagerðin operates in an environment where changes require high investments. If the case behind an idea is strong enough, then the idea will be carried out. However, when asked about how the company approaches uncertain projects, Kristján said the company did not at this moment go into any analysis. He stated that as the company is in a significant transitional phase, they have followed gut feeling and employees' knowledge and experience. Analysis will be taken up as circumstances allow.

To sum up, risk-taking behavior within the participating companies, the majority of them are aware of risk being inherent in innovation. All participating companies frequently undertake risky projects, showing willingness to sacrifice their resources to develop uncertain ideas. Furthermore, before undertaking risky projects, the vast majority goes through some evaluation process by, e.g., evaluating cost- and market potential and conducting business cases, feasibility studies, and implementation plans. Table 5 on the next page shows an overview of results from the risk-taking dimension.
The company conducts projects that fail every year and perceives failure to be a part of product development. Kjörís is willing to invest in machinery for new products even though it has been in a situation where an idea behind new machinery flopped.

<table>
<thead>
<tr>
<th>Table 5 - Overview of results from the risk-taking dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participating companies: Arctic Trucks</td>
</tr>
<tr>
<td><strong>Risk-taking</strong></td>
</tr>
<tr>
<td><strong>To what extent are managers willing to sacrifice the company’s resources in projects that have a chance to fail?</strong></td>
</tr>
<tr>
<td><strong>How does the company handle risky projects?</strong></td>
</tr>
</tbody>
</table>
5.4 Proactiveness
To determine the proactive behavior of the participating companies, various issues were discussed, such as the introduction of services/products/solutions to the market, the company's perception of being a leader or a follower, the willingness to pursue new opportunities and showing initiative to gain insights.

Arctic Trucks
When asked where Arctic Trucks would position themselves compared to other companies when it comes to introducing new products or solutions, Emil stated: "We are doing something that no one else has done, normally." He says this is particularly true in foreign markets. According to Emil, Arctic Trucks is, in general, leading evolution in its specific field. Arctic Trucks employees are perceived as wizards in the South Pole, where the company is very much leading with its innovative solutions.

Arctic Trucks is, according to Emil, somewhat effective in seeking and utilizing opportunities. The company is constantly exploring and following up on the external environment's trends and technology developments. These include, e.g., advancements in batteries, hydrogen, and electric cars, and determining how, if and when, they can apply them to their vehicles.

Lýsi
Hildigunnur feels that Lýsi is not comparable to other Icelandic companies in this sector. However, Hildigunnur talked about a local competitor that is bigger than Lýsi. That company offers more or less the same product to the market, while Lýsi produces and offers a range of products to local and foreign markets and achieves great sales. She perceives Lýsi as a leading company when it comes to quality control and monitoring contaminants and heavy metals.

Every year, the consumer product department attends the world's largest food supplement exhibition in search of new ideas and opportunities. The company also frequently visits and receives customers from abroad and attends conferences and lectures within their field.

Skaginn 3X
When asked if he perceives the company to be leading or following trends and developments in the market, Ingólfur stated: "We do not follow, never... we do not
bother. We have enough leading to do... just keeping on track, and it is rather other companies that are chasing us." As an example, he talked about how they have come up with various new methods and equipment such as the "flowline" and how they introduced the word to the industry as a common noun for that type of machinery. Ingólfur developed the first flowline, and at that time, also came up with the name for it.

Seeking new solutions and improvements is something that is built into the company, according to Ingólfur. They are constantly scouting for young people that can think outside the box. If they find these individuals, they try to activate, train, and develop their talent.

**Mjólkursamsalan (MS)**

According to Björn, MS is most likely a leader, in comparison with other companies, when it comes to introducing new products to the market. MS has established great product development, is constantly producing new products, and knows how to place them in the market. Icelandic food companies are rather small, but MS is one of the biggest. Björn stated: "So I would say that we are one of the strongest out there." When asked whether he perceives MS to be a leader or a follower regarding trends and developments in the market, Björn stated cheerfully: "We are at least not following anyone." He feels the company is rather a leader, where other food companies are probably benchmarking their activities. He took an example of the agriculture industry and said: "There, people have talked about having the same set up as we have in the dairy industry... you know, try to develop and introduce innovations."

MS’ initiative to seek new ideas and opportunities takes on different forms, for example, internal contests for new ideas and brainstorming meetings, which tend to be very productive, according to Björn. They also put great emphasis on communicating with and visiting their suppliers, examining foreign markets, and receiving visitors.

**Sláturfélag Suðurlands (SS)**

When it comes to introducing new products to the market, Hafþór stated that inevitably other companies try to compete with the company and bring similar products, like 1944, to the market. Hafþór considers SS a leader in the marketplace. He took an example of the 1944 brand and explained how it was utterly new to the market when introduced.

Employees at SS frequently seek knowledge from abroad and attend major food
exhibitions to spark new ideas. The company also places much focus on communication with suppliers, both those who provide raw material and equipment. Individuals from the company visit the suppliers regularly to learn about new equipment that might fit their production and consider new raw materials.

**Genís**

Hilmar perceives the company's position as being fairly good, in comparison with other companies, when it comes to the introduction of new products. When Hilmar was asked whether he thinks the company is a leader or a follower in developments in the marketplace, he answered: "We lead in this area or... our area." This perception is first and foremost based on Genís' research and introduction of new products followed by its new sales and marketing approaches.

The company has the exploitation rights of Genís' research results. Therefore, the research side of the company is where Genís seeks new ideas and opportunities.

**Ölgerðin**

Ölgerðin is rather leading than following trends and developments in the marketplace, according to Gunnar. With the Collab drink in mind, he stated: "I am going to stick very hard to the fact that we are leading." He mentioned that a product like Collab existed nowhere in the world and that it is a unique product. To support the leading role further, he mentioned the achievements of the brewery, Borg Brugghús, the country's most progressive brewery, according to him. One of Ölgerðin's most significant innovative projects was undertaken then there. The brewery was first, in Iceland, to brew sour beers, cork stopper beers, imperial stout, and Indian pale ale. Gunnar also mentioned the carbonated water, Kristall, as being a mark of Ölgerðin's leadership, as the drink not only changed people's soft drink consumption but the overall soft drink market in Iceland. Ölgerðin has also altered the juice market by focusing on juice mixtures rather than one fruit juices. The company introduced juices such as the mixture "healthy"-, goji berry juice- and the use of, e.g., antioxidant extract in their products.

The company's doors are wide open for new ideas, according to Gunnar. Ideas come from all over, i.e., employees, consumers, and suppliers. Ölgerðin receives plenty of ideas from consumers through its website. They also put effort into generating ideas internally, where they encourage employees to bring up their ideas, and they have set up a special product development council. The company is eager to seek out ideas from
scientific articles, trends in the market, databases, suppliers, and foreign sources, and they regularly attend conferences.

**Kjörís**

Kjörís' efforts to introduce more new products to the market than its competitors are evident from Capacent's survey results. They show that consumers feel Kjörís is more innovative than competitors, as they introduce more new products. Guðrún also emphasizes that Kjörís is a leader among ice cream production companies when it comes to being environmentally friendly. The company utilizes a steam supply system, while others use electricity or coal. This is an advantage that reduces Kjörís's carbon footprint beyond others.

Ideas within the company come from everywhere; from Guðrún herself, the advertising agency, the annual meeting, from customers as well as employees. Employees are encouraged to bring their ideas to the table, and Kjörís has set up an idea box for them. Guðrún took the example of an older man's request to the company. He had sent them an inquiry about a specific ice cream flavor and Kjörís decided to work with the man and sell the ice cream a few Christmases in a row. Guðrún stated: "We are very quick to catch the ball." Guðrún also talked about being very active in seeking information on the Internet and from foreign countries. She has traveled wide and far, where she tries out a range of different ice creams and collects information to get insights and ideas.

**Kassagerðin**

Kassagerðin emphasizes being ahead of the competition and looks at it as a race. Kristján perceives Kassagerðin as being in a prominent position, compared to the competition, when it comes to introducing new products to the market. He thinks other companies look up to Kassagerðin, especially when it comes to being environmentally friendly. By introducing their innovations, Kassagerðin is continuously reminding customers that they are always creating and developing.

Kassagerðin shows initiative in seeking new ideas, first and foremost by communicating with their foreign partners. According to Kristján, these partners are leaders and partake in significant developments. They also get ideas from their suppliers and examine trends in the environment.
The interviews revealed that all participating companies see themselves as leaders in their field. They also implied that they lead rather than follow innovations in the marketplace. The participating companies perceive themselves as a leader, based on, e.g., that they are doing something no one is doing and are not comparable to other companies, that other companies benchmark their activities, and that they develop and offer new products to the market. They all show initiative when it comes to seeking new ideas and opportunities. The majority of the companies show these initiatives by looking for insights and ideas from customers, suppliers, or employees. Table 6 on the next page shows an overview of results from the proactiveness dimension.
Table 6 - Overview of results from the proactiveness dimension

<table>
<thead>
<tr>
<th>Participating companies:</th>
<th>Arctic Trucks</th>
<th>Lýsi</th>
<th>Skaginn 3X</th>
<th>MS</th>
<th>SS</th>
<th>Genís</th>
<th>Olgerðin</th>
<th>Kjörís</th>
<th>Kassagerðin</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Proactiveness</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>How is the company leading or following developments in the marketplace?</strong></td>
<td>Leading: The company is doing something that no one has done, and employees are perceived as wizards in the South Pole.</td>
<td>Leading: The company is not comparable to other companies in the same industry in Iceland. Hildigunnur perceives Lýsi as a leading company when it comes to quality control and monitoring contaminants and heavy metals.</td>
<td>Leading: The company introduces new Icelandic words, originating from their innovations and solutions, to the entire industry.</td>
<td>Leading: The company has established great product development, is constantly producing new products, and knows how to place them in the market.</td>
<td>Leading: The company introduces products that are new to the market and other companies try to compete with the company and bring similar products to the market.</td>
<td>Leading: The company introduces new products to the market and has altered drink consumption with, e.g., the carbonated water Kristall.</td>
<td>Leading: The company introduces more new products to the market than its competitors. Guðrún perceives Kjörís as a leading company when it comes to being environmentally friendly as the company utilizes a steam supply system.</td>
<td>Leading: Kassagerðin is always creating and developing innovations, and other companies may look up to the company.</td>
<td></td>
</tr>
<tr>
<td><strong>How does the company show initiative when it comes to seeking new ideas and opportunities?</strong></td>
<td>By exploring and following up on the external environment's trends and technology developments.</td>
<td>By attending food supplement exhibitions, conferences and lectures and frequently visiting and receiving customers from abroad.</td>
<td>By constantly scouting for young people that can think outside the box.</td>
<td>By seeking ideas from the company's internal idea contests and brainstorming meetings. Also, by communicating with and visiting the company's suppliers, examine foreign markets, and receiving visitors.</td>
<td>By seeking knowledge from abroad, attending major food exhibitions, communicating with and visiting the company's suppliers.</td>
<td>By focusing on the research side of the company.</td>
<td>By encouraging employees to come up with ideas, obtaining insights from customers and suppliers, attending conferences, reading scientific articles as well as examine trends in the market, databases, and foreign sources.</td>
<td>By seeking ideas from: the annual meeting, idea box, customers, foreign countries and advertising agency, and seeking information on the Internet.</td>
<td>By communicating with the company's foreign partners and suppliers and examine trends in the environment.</td>
</tr>
</tbody>
</table>
5.5 Learning
In order to get familiar with the learning orientation of the participating companies, discussion about the companies' goals, how they foster innovation, their reactions to unsuccessful ideas, and how past experience is utilized for further innovative efforts, took place.

Arctic Trucks
When asked how the company's goals encouraged innovation, Emil stated: "The company's goal is to be a leader in this... and to meet the needs of the customers... so I would say it must be quite encouraging for innovation."

The company has a considerable tolerance for unsuccessful ideas and does not punish employees behind them. The culture inside the company is not to point fingers and blame.

Arctic Trucks frequently revisits past experience when it comes to innovation. Emil declared: "Where you have experience, you use it to the fullest and look back at any experience you have."

Lýsi
Lýsi's goal can be identified as being considerably motivating for innovation to occur inside the company. The company's goal is to be a leader in the production of goods that improve people's health and also to be leading in the development of quality control for these products.

Ideas that fail are considered to be a part of the production process, at least in Hildigunnur's department. Hildigunnur stated: "I would say that there is a pretty forgiving culture." The production process can be complex, and the company frequently has to tackle problems connected to failed steps in that process. However, failed ideas or incidents in the production process are something that Lýsi looks at as a lesson to learn.

Skaginn 3X
The company's goal is to be a leader in food processing, where managers put effort into encouraging employees to improve the business.

Managers decide whether or not certain projects are pursued, and if these projects fail,
then, according to Ingólfur: "Managers can only complain about themselves." The projects that fail and those that succeed are both something the company learns from. Ingólfur stated: "You can often make good things from something that fails because then you know what to avoid."

**Mjólkursamsalan (MS)**

Björn said that the company's goals were an absolute motivator for innovation – in fact, innovation itself has always been the company's goal. Therefore, innovation is always backed up by the management and owners. Björn stated: "One cannot say otherwise, there has been great support for all innovation in the company..."

Unsuccessful or failed ideas are not taken very seriously at MS. The only reaction among colleagues that Björn has been aware of is teasing. Employees are well aware of the failure factor being a part of the process, and it can happen at various stages, such as in the lab and once on the market. Björn stressed: "I think that there is no innovation or product development that always gives a good... good result... it is not possible."

When it comes to innovation, MS always looks back and draws lessons from previous experience. The company employs experienced staff, and all the experience they accumulate adds to the company knowledge. He mentioned one type of failure, one in terms of market timing; sometimes, MS introduces products that consumers are not ready for yet. Thus, MS may later need to look back, reconsider, and re-introduce a product at a different time.

**Sláturfélag Suðurlands (SS)**

One could argue that the company's tagline encourages innovation reasonably well, which is; initiative, collaboration, quality, service, and prudence. Hafþór mentioned the focus on quality and being in the high-end market, as they would never produce cheap products that poorly reflect the brand.

Hafþór perceives ideas that fail as part of the process. They try not to make the same mistake twice and look at ideas that fail as a lesson to learn from. Sometimes SS can build on a previous failure, for example in marketing, and try again when the market is more receptive, based on past experience.
**Genís**
The company's goals are primarily focused on Genís' defined value drivers. Ideas and tasks launched by the company have to work towards and support the value drivers and are prioritized accordingly.

Employees at Genís look at unsuccessful ideas as a learning tool. Past experience, particularly unsuccessful ones, are used in the company's development. Hilmar stressed: "... there is always something to learn."

**Ölgerðin**
The company's goals are multifaceted. Firstly, the goal is to nurture job satisfaction, and they believe that happy employees deliver excellent results. Secondly, the aim is to promote customer satisfaction, as they know that satisfied customers can help the company grow by consuming and recommending their products to others. Thirdly, they have a goal related to shareholders, which is to return profits. The last goal is to encourage product development. Ölgerðin's business plan states that 5% of its revenue should go to product innovations. This budget is dedicated to the realization of a new idea and research and development, which can be argued to be quite encouraging for innovation to occur.

The company accepts mistakes as long as they are not made intentionally or very often. Gunnar stated: "I think there are few things that kill product development as easily as criticizing mistakes." Mistakes at Ölgerðin are rather seen as a phenomenon that can be learned from.

**Kjörís**
The company's goal is to be a leader in sales on frozen deserts in Iceland. Managers have taken many strategic decisions regarding service, quality, innovation, and product development, which Guðrún thinks has put them in the place they are at today.

When it comes to reactions to products that fail within Kjörís, Guðrún stated: "People have to be able to make mistakes without feeling bad about it." She added that individuals need to be assertive and feel comfortable enough to step in at early stages and tell managers that something is not right before the product is distributed and put on the market.

Failures within the company are looked upon as an experience that employees can learn
from. Guðrún mentioned in this context a failed product that they would not be able to take up again and develop to fruition unless they had new machinery. That would be a lesson learned from that trial.

**Kassagerðin**

Kassagerðin's goals are to be present for its customers and maintain their satisfaction as well as their employees', take the initiative, and maintain a robust business. Furthermore, Kristján focuses on creating the right environment for his powerful group of people, so they enjoy coming to work and smile at the end of every workday.

Kassagerðin does not penalize employees for bad ideas or ideas that fail. Instead of pointing fingers and finding out who is responsible for a failure, employees need to be encouraged to move forward, according to Kristján. He stated: "...we have made many mistakes... you die trying, you just have to keep moving forward and not get stuck in the past." The company learns from its past mistakes and has also been able to learn from Oddi's past mistakes. Kassagerðin is, e.g., not going to lose sight of the core business, which is what happened at Oddi, according to Kristján.

As can be seen in the way interviewees view and describe their employing company, they all have set forth goals that encourage innovation. These goals are, e.g., being a leader, dedicating resources to innovation, nurturing employee- and customer satisfaction and returning profits. Moreover, unsuccessful ideas are not taken seriously in all of the participating companies. They all realize that unsuccessful ideas are a part of the innovation process, as they all foster a culture that tolerates failure. Furthermore, they all utilize past experience, from successful as well as failed projects, when it comes to their innovative activities. Table 7 on the next page shows an overview of results from the learning dimension.
Table 7 - Overview of results from the learning dimension

<table>
<thead>
<tr>
<th>Participating companies:</th>
<th>Arctic Trucks</th>
<th>Lýsi</th>
<th>Skaginn 3X</th>
<th>MS</th>
<th>SS</th>
<th>Genís</th>
<th>Ölgerðin</th>
<th>Kjörís</th>
<th>Kassagerðin</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Learning</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>How do the company's goals encourage innovation?</strong></td>
<td>Encouraging: The company's goal is to be a leader in its field.</td>
<td>Encouraging: The company's goal is to be a leader in the production of goods that improve people's health and also to be leading in the development of quality control for these products.</td>
<td>Encouraging: Innovation has always been the company's goal.</td>
<td>Encouraging: The company's tagline is initiative, collaboration, quality, service, and prudence.</td>
<td>Encouraging: The company's goals are to nurture employee- and customer satisfaction, return profits, and dedicating 5% of its revenue in product innovations.</td>
<td>Encouraging: The company's goal is to be a leader in sales on frozen deserts in Iceland.</td>
<td>Encouraging: The company's goals are to be present for its customers, maintain customer- and employee satisfaction, take the initiative, and maintain a robust business.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>How are unsuccessful ideas perceived within the company?</strong></td>
<td>Not taken seriously: The company does not punish employees behind unsuccessful ideas.</td>
<td>Not taken seriously: The company possesses a forgiving culture.</td>
<td>Not taken seriously: Managers can only complain about themselves.</td>
<td>Not taken seriously: The only reaction to unsuccessful ideas within the company has been teasing.</td>
<td>Not taken seriously: Unsuccessful ideas are a part of the process.</td>
<td>Not taken seriously: The company accepts mistakes as long as they are not made intentionally or very often.</td>
<td>Not taken seriously: Employees do not have to feel bad about making mistakes.</td>
<td>Not taken seriously: The company does not penalize employees for bad ideas or ideas that fail.</td>
<td></td>
</tr>
<tr>
<td><strong>When it comes to innovation, how does the company utilize past experience?</strong></td>
<td>The company frequently looks back and uses any experience it has to the fullest.</td>
<td>Lýsi looks at failed ideas or incidents in the production process as a lesson to learn.</td>
<td>Projects that fail and those who succeed are something the company learns from.</td>
<td>The company always looks back and draws lessons from its previous experience.</td>
<td>The company looks at ideas that fail as a lesson to learn from and tries not to make the same mistake twice.</td>
<td>Past experience, particularly unsuccessful ones, are used in the company's development.</td>
<td>The company learns from its past mistakes.</td>
<td>The company has been able to learn from its past mistakes and also Oddi's past mistakes.</td>
<td></td>
</tr>
</tbody>
</table>
5.6 Managerial implications

Managerial implications were inquired about by asking interviewees questions such as, how innovation was part of the company's success and how they perceived the current approach to innovation within their company.

Arctic Trucks

Emil said innovation plays a big part in the company's success. Arctic Trucks is, in a broader context, an innovation company as it is constantly innovating. However, Emil stressed that innovation does not live indefnitely without a constant business model.

Emil indicated that Arctic Trucks had been used to being able to do more, innovation wise. He expressed that the focus within the whole company needed to be revised in regard to the current approach to innovation, especially from the budget perspective.

Lýsi

When it comes to innovation as a part of the company's success, Hildigunnur mentioned the production processes. Some of these processes have been invented inside Lýsi and are perceived as being the foundation of the business. These processes have the biggest impact on the large users' department, which generates 90% of the total sales.

Innovation in the consumer product department, on the other hand, is something that Hildigunnur considers a part of a positive image as it expresses the company as an active player in the marketplace.

In general, the company is very open to new developments and improving products and processes. Moreover, Hildigunnur perceives Lýsi as being on the right track when considering their approach to innovation. When asked about possible improvements in the company's approach to innovation, Hildigunnur smiled and stated: "I might just want a bigger budget." While having the right culture and opportunities to foster innovation, budget is the only constraining issue, although she would not necessarily think of the approach itself as something that urgently needed improvements.

Skaginn 3X

Innovation contributes to the company's success in all respects. Ingólfur stated: "We would not be here if it were not for innovation." He is very interested in innovation, which he, sometimes, says results in too much innovation inside the company. He stressed Skaginn 3X needs to take care of the balance between innovations and
actualization in the market to create income. This income should be used for further innovations; he stated: "You have to make sure that innovation, marketing, sales... bring new resources to new innovations. It must be like that... that is this balance between the two." Making this cycle smooth is the main improvement that could be made on the company's approach to innovation, according to Ingólfur.

**Mjólkursamsalan (MS)**

Innovation is a key factor in MS' business success and plays a fundamental role in the company's profits, according to Björn. Milk, as a raw material, has much to offer in terms of product developments and innovations. The company is fully aware of this and makes the most of it. Björn stated: "This is like an utopia for someone who is in innovation."

Björn perceives the company's approach to innovation as being adequate. They have experienced people that work well in teams and get things done. However, he feels they can always improve. They have plenty of projects that he would like to cover and get done faster, but to do so, they need more employees to join the team.

**Sláturfélag Suðurlands (SS)**

Hafþór finds innovation inevitable in today's competitive environment. Innovation is a major contributor to the company's success. Exploring a broader basis to sell SS' products has always been a part of their strategy and culture.

Hafþór is satisfied with SS' approach to innovation but knows that there is still room for improvement. He mentioned four areas that he would like the company to improve. Firstly, SS could map innovation projects better. Secondly, they need to keep better track of ideas, which is something the company is already considering. Thirdly, they could improve in giving employees rewards for ideas that become a reality. Lastly, the company can collaborate with external parties, such as the agriculture cluster.

**Genís**

Innovation is, to a large extent, responsible for the success of the company, considering that it arose entirely from innovation. Genís' approach to innovation is focus driven. A future plan is to divide the company into smaller companies around the opportunities that exist, to gain more focus on what is most important. According to Hilmar, improvements in Genís' approach to innovation are always needed. He mentioned that
they need to develop innovations with a more product-market fit, take care of regulations, and attract more talented individuals. Hilmar stressed: "Or else we are dead."

**Ölgerðin**

Gunnar finds it of great importance to respond to changes in consumer needs and knows that the company will otherwise fall behind. Consumers can only consume a certain amount of beverages. If Ölgerðin decided to hold their product innovation back while other companies were constantly innovating, they would eventually lose their piece of the pie. Gunnar declared: "So I say that for such an established company like Ölgerðin, that is just a matter of life and death, we would not exist..."

Gunnar always feels a need for improvement in the company's approach to innovation. He would like to be able to speed up the product innovation process and receive more money for innovation projects. Ölgerðin needs to buy more machinery, which allows the company to introduce product innovation at a good pace. One fully dedicated employee in product development would be much appreciated as well. Overall, the need for more resources is evident, Gunnar stated in a light tone: "...one would like to see just more gadgets and more people."

**Kjörís**

Innovation is, in every way, the reason for the company's success. If Kjörís was still only producing the same products as it did at the beginning, it would not be where it is today, according to Guðrún. She doubts that the company would be alive and if so the company would only employ seven employees as it did back then.

Managers inside Kjörís always feel the need for improvement in their approach to innovation. Now they are focusing on more automation, due to collective agreements and employee layoffs. She discussed that it could be achieved through mechanization, as they recently bought their first robot. All these types of machinery are costly, leading to an overinvestment, a challenge that managers will have to face in years to come, according to Guðrún.

**Kassagerðin**

When asked how innovation is a part of the company's success; Kristján could not answer for Kassagerðin as they are somewhat at a starting point due to the separation
process from Oddi.

Kristján feels that Kassagerðin's approach to innovation can always be improved. When their first projects start to give a return on their investment, the scope for improvement will become more clear. However, Kristján discussed that they are not at a total starting point as they can learn a lot from past experiences and mistakes from Oddi. He focuses a lot on how things can be better managed and creating an environment for employees that fosters innovation, which is something that he is already improving by, for example, taking out individual performance measurements, thus maintaining a team spirit.

When expressing their views on how innovation was part of the company's success, the majority of the interviewees indicated that innovation played a significant role. In judging their company's current approach to innovation, all conveyed that there was room for more innovation. It could sometimes be increased through a different approach, but most interviewees felt, to a varying degree, limited by a lack of resources, financial and human. Table 8 on the next page shows an overview of results from the managerial implications theme.
### Table 8 - Overview of results from the managerial implications theme

<table>
<thead>
<tr>
<th>Participating companies</th>
<th>Arctic Trucks</th>
<th>Lýsi</th>
<th>Skaginn 3X</th>
<th>MS</th>
<th>SS</th>
<th>Genís</th>
<th>Ölgerðin</th>
<th>Kjöris</th>
<th>Kassagerðin</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Managerial implications</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>To what extent has innovation contributed to the company's success?</strong></td>
<td>Innovation plays a big part in the company's success.</td>
<td>The company's processes, which are the foundation of the business, are based on innovation.</td>
<td>Innovation contributes to the company's success in all respects.</td>
<td>Innovation is a key factor in MS' business success and plays a fundamental role in the company's profits.</td>
<td>Innovation is a major contributor to the company's success.</td>
<td>Innovation is, to a large extent, responsible for the success of the company.</td>
<td>Innovation is a matter of life and death for the company.</td>
<td>Innovation is, in every way, the reason for the company's success.</td>
<td>It is unknown as the company is somewhat at a starting point due to the separation process from Oddi.</td>
</tr>
<tr>
<td><strong>Is there a need for improvement in the company's approach to innovation?</strong></td>
<td>The focus needs to be revised from a budget perspective as the company was used to do more in terms of innovation.</td>
<td>The company needs a bigger budget.</td>
<td>The company needs to take care of the balance between innovations and actualization in the market.</td>
<td>The company needs more employees to get projects done faster.</td>
<td>The company could map innovation projects better, keep better track of ideas, improve in giving employees rewards for successful ideas, and collaborate with external parties.</td>
<td>The company needs to develop innovations with a more product-market fit, take care of regulations, and attract more talented individuals.</td>
<td>The company needs more financial- and human resources.</td>
<td>The company wants to focus on more automation. Therefore the company needs to invest in expensive machinery.</td>
<td>The company's approach to innovation can always be improved. When the first projects start to give a return on their investment, the scope for improvement will become more clear.</td>
</tr>
</tbody>
</table>
6. Discussion

This chapter opens by reviewing how the data from all nine interviews are linked to the study's literature, having the study's conceptual framework as a guiding principle. Subsequently, this study's managerial implications will be set forth. The chapter concludes by examining the limitations of this study.

6.1 Overview of results

Morris et al. (2008) argue that entrepreneurship inside organizations can materialize in various ways. Accordingly, the focus of this study was to examine in what way the participating companies address different dimensions in this study's conceptual framework. The findings indicate that all nine participating companies are, to some extent, entrepreneurially oriented and they exploit two selected activities of successful Startups, as they take on different forms in each dimension of the conceptual framework. This highlights what Duane Ireland et al. (2006a) previously suggested, that organizations differ when it comes to their entrepreneurial intensity (EI) and perception.

When it comes to inspiration, innovation needs to be integrated into the strategy and culture for companies to be effective (Kearney et al., 2008), and this is evident in all participating companies. Innovation is well integrated into their strategy and culture. Some interviewees went, as far as to say that innovation is at the company's core and is a part of the company's DNA. However, culture is not the only thing that pushes these companies to be innovative. Some of the companies are constantly on their toes due to regulations, the operating environment, and the raw material. These findings are in line with previous research, suggesting that innovation is a company's response to changes in external factors, where some firms tend to innovate at tricky times (Dougherty & Hardy, 1996; Morris et al., 2008).

Amabile (1998) argued that managers could enhance creativity inside their organizations if they support and appreciate creative efforts. Surprisingly, the majority of the participating companies do not provide employees with recognition or appraisal when it comes to creative contributions or successful ideas. This has proven to be difficult for them, mainly as they take such activities for granted. Davila & Epstein (2014) argued that managers need to understand that creativity often takes on the form of combining many existing ideas. In this regard, some of the participating companies
find it hard to see who owns each idea, which is also the reason for the lack of provided recognition. Although they may understand that ideas can evolve out of many ideas from different employees, they do not give any appraisals. According to Amabile (1998), this can lead to employees feeling underappreciated, which in turn might decrease their passion and energy for continuing creative efforts. One interviewee, of the minority that puts effort into providing employees with recognition, discussed how he tries to give recognition to employees as a whole, given the difficulties finding the one who deserves praise. Another company has established special meetings where employees are given encouragement with recognition. Interestingly, Amabile's (1998) views on intrinsic motivation are apparent in the latter company's approach when it comes to providing recognition. The interviewee stated: "Rewards are never given in the form of money, but more in recognition and by encouraging people on their path." This is directly in line with what Amabile (1998) previously suggested; that when enhancing creativity and fostering intrinsic motivation, it is essential to avoid monetary rewards.

When it comes to allocating projects to employees, the majority of participating companies seem to have unsystematic ways towards it, as projects are not evenly divided between employees. Some of the companies seem to allocate projects to employees that are most suitable for the job, or as Amabile (1998) would put it, the most eligible employees are matched with the most eligible projects. This can lead to inefficient practices, as it has been argued that it is crucial to appropriately match employees and projects to stimulate creativity inside organizations (Amabile, 1998). One company seems to be tackling this matter by allocating projects and resources on a project basis. There, approved projects go through a particular process, where sufficient resources, both human and financial, are provided.

Admirably, autonomy and freedom are essential aspects for all of the participating companies. According to Amabile (1998), granting freedom is fundamental to enhancing creativity inside organizations. One interviewee stated that the only thing required from employees is achieving success, regardless of how they come about it, which is in line with Amabile's (1998) theory quoted above; to give employees the freedom to approach a specified goal. Employees inside all participating companies seem to have a chance to shine and come up with new ideas while working autonomously within a specific frame.
Davila & Epstein (2014) suggest that focusing on diverse perspectives, which can be achieved through teamwork and communications between diverse employees, can aid creativity inside organizations. Teamwork and communications are factors that are valued inside each participating company. One interviewee stated that it is impossible to develop a product alone in the office without communicating and exchanging ideas with others. The majority of the participating companies find it essential to assemble the perfect team by combining specific employees needed for that specific product development. Also, a colocation set up, where everyone works in one open space, open-door policy, and short communication lines were mentioned to be a fundamental approach to interdisciplinary communications. From Davila's & Epstein's (2014) point of view, these findings suggest that all participating companies are somewhat positively effecting the quality and type of innovation occurring inside their companies.

When considering innovativeness, the majority of the participating companies can be perceived as innovative, from Lumpkin's & Dess' (1996) point of view, as all participating companies provide new ideas, and experiments connected to them, with resources and support, although the majority evaluates ideas before granting support. Interestingly, one interviewee had experience of two approaches towards resource allocation. He talked about how a centralized path towards resource allocation, had restricted creativity, while a localized approach, had in his view given better results as it is more flexible. Overall, it is evident that organizations can secure resources for innovation in various ways. In this context, one particular company stands out and could be exemplary as it recently implemented a policy of allocating 5% of the company's revenues to innovation. However, from Baker's & Sinkula's (2009) standpoint, one could be confused about the actual innovativeness, some of the participating companies possess. They define innovativeness as the willingness to seize completely new opportunities and ideas, but some interviewees, a minority, indicated that they would not do something completely new and out of their operational frame. Therefore, it remains unclear just how innovativeness these particular companies are. In spite of this, the majority of the participating companies either said they were open to or were already operating in entirely new markets. It is thus at least evident that all the participating companies can be placed on the innovativeness continuum, presented by Lumpkin & Dess (1996), ranging from having the enthusiasm to try new things to fully
committing carrying out the latest product and technological advances. Duane et al. (2006b) previously mentioned suggestions on solutions for customers, further support the fact that all participating companies show innovativeness, as they all focus on creating creative and novel solutions for their customers.

With regard to the risk-taking dimension, Duane Ireland et al. (2006b) suggested that risk-taking comes in the form of willingness to sacrifice resources to uncertain projects. Accordingly, the majority of the participating companies can be categorized as risk-seeking as they all frequently undertake risky projects. Although, it is evident that the participating companies differ when it comes to their risk-seeking behavior. Lumpkin & Dess (1996) suggested that the risk-taking concept can be seen on a continuum ranging from safe risks to highly risky behavior. According to their definition, only a few participating companies tick in all the highly risky behavior boxes; bringing new products into the market, borrowing heavily, or investing in unexplored technology. Therefore, the minority of the participating companies seem to be positioned at the higher end of the risky behavior continuum. However, one could not put the remaining majority in the safe risk behavior category, as Lumpkin & Dess (1996) argued that safe risk is characterized by depositing money in a bank, which is not what they solely do in terms of risk-seeking behavior. This indicates that the majority of the companies can be placed somewhere at the lower end of risky behavior, or as slightly risk-averse. The majority of the participating companies are aware of the fact that being in product development entails certain risks, as there is no such thing as absolutely no risk (Lumpkin & Dess, 1996). Research suggests that risks that follow opportunity exploitation are evaluated, recognized and prioritized before actualizing new ideas (Duane Ireland et al., 2006b; Morris et al., 2008), which is in line with the study's results. The majority of the participating companies go through certain evaluation processes when considering new opportunities. These processes can be seen in the form of market potential evaluation, cost evaluations, market reactions, examining trends, gaining feedback from colleagues, conducting business cases, feasibility studies, and implementation plans.

Touching on proactiveness, firms that strive to make proactive decisions rather than slowly react to market trends are considered to be proactive, according to Miller & Friesen (1978). In line with this, evidence shows that all the participating firms are
proactive. All interviewees perceived their employing company as leading. Some interviewees were very firm in their opinion. They claimed that they would never follow competitors and were always striving to introduce something entirely new to the market. Some even claimed that they were not comparable to anyone in the marketplace. One participant put forth a compelling argument that is worth merit. He stated that the company introduces new Icelandic words to the entire industry, words originating from their innovations and solutions, indicating that the company is a trendsetter. Baker & Sinkula (2009) argue that in order to be proactive, firms need to show initiative and pursue opportunities. This suggestion further indicates that all of the participating companies are somewhat proactive. All the participating companies strive to pursue opportunities and show initiative when it comes to gaining insights and ideas. The majority of the companies look for insights and ideas from customers, suppliers, or employees. Some of them bring diverse employees together at regular meetings. One referred to these meetings as brainstorm meetings and claimed they were an effective approach when it comes to generating ideas. Gaining insights from the company's research side, examining trends in the environment and markets, reading scientific articles, attending conferences and exhibitions, communicating with foreign partners, and headhunting people with creative thinking skills were also mentioned as being go-to activities.

In regard to the dimension of learning, Davila & Epstein (2014) argued that companies need to have broad and inspiring goals in order to create a learning environment. All the participating companies seem to realize how important it is to have clear and motivating goals, which is what Davila & Epstein (2014) argue to be essential. The participating companies' goals range from being a leader in the industry, supporting value drivers, increasing both employee and customer satisfaction, and showing initiative. One could argue that all these goals are broad and inspiring. Moreover, all interviewees somewhat indicated that their goals foster innovation. These are essential findings from McKee's (1992) point of view, as he argues that mainly management actions, such as putting forth clear and motivating goals, affect successful innovations inside organizations.

The culture inside the participating companies can be categorized as a forgiving one. They all accept failure when it comes to mistakes in the production process, on the market, and even in the lab. These results reinforce the fact that the participating companies are proactive as previous research states that proactive behavior requires
firms to accept missteps and lack of success (Duane Ireland et al., 2006b). They also show that the participating companies are somewhat learning-oriented, as they perceive failure as a learning tool in the way Davila & Epstein (2014) define learning.

According to Jennings & Lumpkin (1989), all the participating companies could be categorized as entrepreneurial organizations, as they do not punish employees for project failures. Moreover, from Hornsby's et al. (2002) point of view, one could argue that all the participating companies are retaining corporate entrepreneurship (CE) as they boast a failure-tolerant culture. Ideas seldom succeed without trial and error, and the discovery process frequently includes failures. Ideas require experimentation and learning from experiences (Davila & Epstein, 2014). Lynn et al. (1996) argued that innovative firms exploit experience to adapt their products and market approach. It is noteworthy, that all the participating companies have managed to develop precisely this way of thinking. They look at failures or unsuccessful ideas as an experience to learn from and apply it to their continuing innovation efforts.

Unfortunately for some of the companies, the routine approach can override the creative space. So much that one participant even claimed that routine always wins, where product development is tomorrow's mission, while another participant mentioned that the routine approach could be dominant. These results are in line with previous research, suggesting that managing both creativity and routine can be difficult due to the differences in the approach (Schumpeter, 1947; Tushman & Nadler, 1986). This does not come as a surprise as the inspirational environment is not a fixed condition, and in fact, the entrepreneurial environment needs to be arranged and structured in established organizations (Davila & Epstein, 2014).

6.2 Managerial implications

When it comes to improvements in the participating companies' innovation approach, all interviewees seemed to agree there was a general lack of resources for product development. They would like more human- and financial resources to innovate at a higher capacity. This may raise concerns about the actual entrepreneurship within each participating company's organizational context from Stevenson's & Jarillo's (1990) viewpoint. They argued that those who pursue entrepreneurship exploit opportunities without respect to available and controlled resources. However, the lack of resources does not necessarily smother new ideas inside these companies. But to see them to fruition, is an expensive process. If it were not for the high expenses, one would witness
more innovative activities inside organizations (Morris et al., 2008). The main concern here is, thus, how companies secure resources for innovation projects. As mentioned above, one company tackles this problem better than the others as it aims to allocate 5% of the company's profit to product innovation every year, which is something that established companies might consider doing. A special fund dedicated solely to innovation, could be useful for all of the participating companies, categorized in the two phases mentioned above from Greiner's (1998) organizational growth model. On the one hand, companies that seem to be obligated to innovate, because of the products/services they provide can secure resources in order to keep the business running. While, on the other hand, companies that strive to be more innovative can reserve resources to ensure that they will not solely be devoted to routine projects.

But why do companies engage in innovation? According to the participating companies, innovation is everything; they would not be here today if it were not for their innovative efforts. These findings are in line with Dougherty's & Hardy's (1996) previous statement, which implies that firms must innovate in order to survive.

In this light, this study can hopefully give managers valuable insights into how innovation and entrepreneurship present themselves in established companies in Iceland. The study results will be made accessible through a knowledge and educational website, run by the company Kompás. Kompás shares various practical information for companies, and this study is a collaborative project with the company. Until now, Kompás has mainly provided companies with information under the section "Human resources." However, opening a special section with information on innovation is something that has long been planned and has now become a reality. This new section will provide managers with information about product development and experience stories from other companies (Björgvin Filippusson, 2019). This study, with the valuable insights of participating companies, regarding their approach to innovation, will contribute to this new innovation section. The aim is to benefit managers in established Icelandic companies. Therefore, all information received from the empirical data can be looked at as "dos and don'ts" for similar companies in the same industry.

6.3 Limitations
As can be expected, there are some limitations to this study. Inherent in the research method is the fact that insights from managers could only be gained through their account and not their real actions. One should also bear in mind, although it was not the
aim of this study, that the given results cannot be generalized to other Icelandic
established companies, as a probability sampling method was not used. Concerning the
data collection, that took place via interviews, some limitations should be mentioned.
All interviews but one were conducted face-to-face. There is thus a possible
inconsistency in the data interpretation, as mobile phone interviews carry certain
limitations, not present face-to-face. Furthermore, it is possible that the quality of
interviews increased with time, as the author better mastered the techniques. The final
limitation of this study is the difference between participating companies. As mentioned
above, they are inherently different in terms of innovation. Although their differences
give a certain overview of Icelandic established companies as they provide different
insights, the companies give different results, which makes it difficult to compare them.

7. Conclusion and recommendations

In order to answer the following research question: "How do established Icelandic
companies approach innovation? ” a qualitative multiple case study of deductive nature
was carried out.

The findings indicate that all nine participating companies are, to some extent,
to some extent, entrepreneurially oriented, and they exploit two selected activities of successful
Startups. Accordingly, all participating companies' innovation approaches take on
different forms in each dimension of the conceptual framework; Inspiration, risk-taking,
innovativeness, proactiveness, learning. Although their approaches vary within each
dimension, the majority of participating companies show similarities in three factors
that could be improved, within the dimensions of this study's conceptual framework.
Therefore, when bringing the conclusion into perspective, three points merit to be
mentioned. Firstly, project allocations seem to be unsystematic. Secondly,
acknowledgments for creative contributions and successful ideas have been neglected.
Lastly, resources devoted to innovation are inadequate. An essential additional factor
seemed to be a challenge for two of the participating companies and is thus mentioned
here: Creativity risked to be taken over by routine approach if no effort was made.
According to the literature that has been reviewed, these listed factors are all aspects
that can be improved within established organizations in order for creativity and
innovation to flourish.
This study attempts to shed light on how the nine participating companies' approach to innovation is aligned with the conceptual framework of this study. By offering insights into the participating companies' innovation activities, this study helps fill a gap in the innovation management literature, particularly within established organizations.

One limitation of the study is that the sampling method was a non-probability sample; therefore, managers in other companies cannot assume that these results also apply to their organizational context. Managers need to thoroughly analyze their own practices and see where they are positioned in each of this study's conceptual framework dimensions. However, the similarity between the participating companies in this study's results could be an indication as to where one could start looking - by examining the three concluding points, mentioned above, in their organizational context.

Indeed, there can be a mismatch in what managers say they do and what actions they take. Therefore, a recommendation to future researchers is to conduct observations in Icelandic established companies and align actions to this study's conceptual framework. Such a research method could expose valuable insights that cannot be generated through interviews.
References


https://www.benecta.is/pages/story

Bharadwaj, S., & Menon, A. (2000). Making innovation happen in organizations:
https://doi.org/10.1111/1540-5885.1760424

https://doi.org/10.1177/1094428106292900


Laskovaia, A., Marino, L., Shirokova, G., & Wales, W. (2019). Expect the unexpected: Examining the shaping role of entrepreneurial orientation on causal and effectual decision-making logic during economic crisis. *Entrepreneurship*
and Regional Development, 31(5–6), 456–475. 
https://doi.org/10.1080/08985626.2018.1541593


*Medical Care, 24*(2), 97–112.

https://doi.org/10.1016/0737-6782(92)90033-9


https://doi.org/10.1287/mnsc.29.7.770


https://doi.org/10.1016/0148-2963(91)90056-4


https://doi.org/10.1287/orsc.1110.0706


https://doi.org/info:doi/10.18999/bulitv.2.1


Appendices

Appendix, A - Semi-structured interview guide

General

1. Hvert er starfsheitið þitt og hversu lengi hefur þú unnið hjá fyrirtækinu?
2. Hversu margir starfsmenn vinna hjá fyrirtækinu?
3. Hvenær byrjaði fyrirtækið að vinna að nýsköpun?
4. Hversu mikið er unnið að nýsköpun í fyrirtækinu og telur þú þörf á aukinni nýsköpun?

Conceptual framework

Inspiration

5. Hvernig er nýsköpun samþætt við stefnumótun og menningu fyrirtækisins?
6. Hvernig hvetur umhverfð og menning fyrirtækisins starfsmenn til þess að vinna að nýsköpun og sköpunargáfų?
7. Hvernig er veitt áрагurnsíkum hugmyndum og hugmyndaríkum framlögum innan fyrirtækisins, viðurkenningu eða lof?
8. Hvernig er starfsmönnun úthlutað verkefnum og auðlindum?
9. Hvernig fá starfsmenn fyrirtækisins svigrúm fyrir sjálfstæð og vinnubróððí?
10. Hvernig leggur fyrirtækið áherslu á samskipti og teýmisvinnu milli fjölbreytttra starfsmanna?

Innovativeness

11. Að hvaða leyti hefur fyrirtækið tilheingingu til þess að styðja við og taka þátt í skapandi ferlum, nýjungum, nýjum hugmyndum og tilraunum?
12. Hversu mikið er fyrirtækið tilbúið til að taka þátt í frábrugðíinni starfsemi og grípa ný tækifæri og hugmyndir?
13. Hversu mikið leggur fyrirtækið áherslu á að skapa nýjar og skapandi lausnir fyrir viðskiptavini? Getur þú nefnt dæmi?

Risk-taking

14. Að hvaða leyti eru stjórnnendur reiðubúnir að fórna auðlindum fyrirtækisins í verkefni sem eiga möguleika á því að misheppnast og hversu oft tekur fyrirtækið
þátt í slíkum verkefnum?
15. Hvernig takið þið á tvísýnum verkefnum?
16. Þegar kemur að tvísýnum verkefnum, hvernig tekur fyrrirtækið á áhættum?

Proactiveness

17. Þegar kemur að kynningu á nýjum vörum á markaðinn, hvar telur þú fyrrirtækið vera staðsett í samanburði við önnur fyrrirtæki?
18. Hvort telur þú að fyrrirtækið elti eða leiði þróun á markaði og hversvegna?
19. Hvernig sýnir fyrrirtækið frumkvæði í því að sækjast eftir nýjum hugmyndum og tækifærum?
20. Hvernig nýtið þið tækifæri á makaði?

Learning

21. Þegar kemur að nýjum hugmyndum og tilraununum á þeim, hvernig er þeim veitt auðlindir og stuðning?
22. Hver eru markmið fyrrirtækisins og hvernig eru þau hvetjandi til nýsköpunar?
23. Hvernig er lítið á hugmyndir sem misheppnast innan fyrrirtækisins?
24. Þegar kemur að nýsköpun, hvernig nýtir fyrrirtækið fyrri reynslu?

Managerial implications

25. Að hvaða leyti á nýsköpun þátt í árangri fyrrirtækisins?
26. Hvað finnst þér um núverandi nálgun á nýsköpun hjá fyrrirtækinu?
27. Finnst þér þörf á umbótum á nálgun nýksöpunar innan fyrrirtækisins? Getur þú nefnt dæmi?
Appendix, B - Interview request email

Sæl/l X

Ég heiti Edda Björk Bolladóttir og er að skrifa meistararitgerðina mína á sviði stjórnnun nýsköpunar í sumar. Hallur Þór Sigurðarson er leiðbeinandi rannsóknarinnar og er hún gerð í samstarfi við KOMPÁS, þar sem hægt verður að finna nytsamlegar upplýsingar um nýksöpun. Markmið ritgerðarinnar er að rannska hvormig Íslensk starfandi fyrirtæki nálgest nýsköpun. Til þess að ná markmiðinu þarf ég að taka viðtöl og hef áhuga á því taka viðtal við viðeigandi starfsmann innan fyrirtækisins.

Viðtalið verður tekið á íslensku og þarf að vera tekið upp svo hægt sé að greina og álykta viðeigandi niðurstöður. Heitið á fyrirtækinu þarf ekki að vera birt í ritgerðinni ef þess er óskað.

Ég yrði mjög þakklát fyrir þátttöku fyrirtækisins, en hún mun veita móður ómetanlegar upplýsingar. Stefnan er að taka viðtöl í júní og er ég laus hvenær sem ykkur hentar. Lengd viðtalsins ætti ekki að taka meira en klukkustund.

Bestu kveðjur,
Edda Björk Bolladóttir