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Høgskulen  
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# MASTER'S THESIS

Driving Growth Through Innovation in Norway's Business Environment: An Explorative Study of Strategies and Best Practices for Established Organizations and Startups

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22.05.23

We confirm that the work is self-prepared and that references/source references to all sources used in the work are provided, cf. Regulation relating to academic studies and examinations at the Western Norway University of Applied Sciences (HVL), § 12-1.

# Preface

This Master's thesis marks the final chapter of a two-year Master's program at the Western Norway University of Applied Sciences in Sogndal, adding the total time spent here to five years. Now, we both look forward to new challenges.

Writing the master thesis took a lot of effort. However, it was very fulfilling to explore deeper into a subject of our interest. Now that the thesis is finished, we want to express our gratitude to several individuals. Thank you Marinés, Trond, Steinar and Kaj-Robin for taking the time to share your in-field knowledge about innovation with us, despite your hectic schedules. The interviews with you have truly been an inspiration. We are also grateful to everyone who helped us reach the informants. Furthermore, we also want to thank Martin and Thomas for helping us by participating in pilot interviews.

Additionally, we would like to thank our coworkers at Rocketfarm and our employer for adapting our schedules to the thesis. We also want to thank fellow students, especially our roommate Henrik Skyttermoen for great discussions and a lot of fun. Thank you Janni Rossevold for taking your time to give helpful feedback. Furthermore, we want to thank all the teachers and professors from whom we have had the privilege to learn from in the past five years.

Finally, we would like to express our sincere gratitude to Gregory Kwiatkowski, who serves as our supervisor and has always been a source of motivation and wise counsel. Not only do you have much knowledge, you are also a man of great values, humor and a good heart. Thank you for pushing us and for all the support. Working with you has been a delight!

Happy reading!

Sogndal, May 2023

Olav Seljeseth and Sindre Jensen

# Abstract

Innovation serves as a critical driver of economic growth and competitiveness in today's rapidly evolving business environment. There is no universal formula for achieving positive performance; various paths can lead to the same desired outcome. However, the landscape of innovation has undergone significant transformations in recent years. Traditional models of closed innovation, where companies rely solely on their internal resources, are being challenged by a more open and collaborative approach. Several established organizations recognized the benefits from seeking outside their house to innovate and stay competitive, while startups seek resources, expertise, and market access, often provided by established players.

This thesis explores diverse paths organizations in Norway's business landscape uses to achieve positive performance through innovation. It investigates the strategies and practices established organizations and startups employ to pursue innovation. This is done while considering factors such as ambidexterity, organizational culture, measuring innovation, and innovation ecosystem. By analyzing through a case study approach and examining the underlying dynamics, this study seeks to uncover the key determinants of innovation performance. Additionally, the thesis highlights the importance of synergy between established organizations and startups. By leveraging each entity's complementary strengths and resources, a collaborative approach fosters a mutually beneficial relationship, driving innovation and developing a win-win scenario. Furthermore, the study acknowledges the relevance of developing increased standardization in the context of innovation. In conclusion, this thesis explores the various approaches to innovation taken by established organizations and startups. By understanding these dynamics, organizations can better foster innovation, drive economic growth, and enhance competitiveness in today's business environment.

Keywords: Innovation, startups, established organization, case study, synergy, ambidexterity, standardization of innovation

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# Chapter 1. Introduction

The 21st century has seen the rise and fall of countless companies, with some reaching astronomical heights in the blink of an eye, while others have fallen through. The one common factor behind these dramatic success stories and failures? Innovation. Innovation is not only about developing new products and earning profits; it is also a crucial driving force behind solving the world's pressing issues. By exploiting the potential of innovation, a more sustainable, healthier and equal future can be found. Through innovation, growth can be stimulated, societies can be improved and technology that improves everyday life can be developed.

The aim of this thesis is to undergo some of the available research on innovation and examine how theory and practice of innovation align. There are a lot of existing theories on innovation. However, there is often a difference between what the literature says, and what is done in real life. In today's business environment, innovation is imperative (Pisano, 2015; Viki et al., 2017; Weiblen & Chesbrough, 2015). However, established organizations and startups often face different challenges in fostering innovation due to their size and organizational structure (Viki et al., 2017). On the one hand, established organizations have more resources at their disposal, but may struggle to maintain an innovation culture because of their established processes, hierarchies and ways of doing things that can be resistant to change. On the other hand, startups may have limited resources, but often drive innovation in unique ways (Freeman & Engel, 2007).

Viki et al., (2017, p. 10) point out something that can be difficult to disagree with: “It is undeniable that the world around us is changing. Technology and software have transformed business, and continue to do so in more and more dramatic ways”. Mark the last sentence and now think of how TikTok, ChatGPT, and similar examples have gained an incredibly large market share at an unbelievable speed. The quote is from 2017, and the authors were right. Now, the world is changing in more and more dramatic ways. Perhaps even more dramatic than they, and others, thought at that time. While the average time it takes for an organization to reach a \$1 billion valuation gets lower, the lifespan of organizations is also getting shorter (Garelli, 2016; Viki et al., 2017). However, while the overall business is changing, this thesis will focus on the business environment in Norway.

The business environment in Norway is facing challenges (Haugli, 2023). Having the solutions or the technology is not enough, they need to be presented to the market, to a customer. It needs to result in a sale. The startups may sit on the solutions and the technology, but may struggle to bring the solutions and technology out in the market. Haugli (2023) also points out how startups in Norway are struggling with gaining capital. In other words, there is a risk that new technology and solutions do not reach the market. This thesis highlights how the synergy between established organizations and startups could improve the situation for both participants, and align on innovation and standards for innovation.



## 1.1 Thesis statement

As the characteristics of a successful company, such as the lifespan and time to reach a \$1 billion valuation, are evolving (Haugli, 2023), so are the strategies and practices for doing business. The thesis aims to contribute to understanding how the limitations and strengths of a startup and an established organization affect innovation work. Additionally, it aims to contribute to understanding how a synergy between startups and established organizations can benefit both. Innovation theory needs to be developed alongside the development of the business environment. While the business environment is developing at an unbelievable speed, so must the innovation theory. If not, there is a risk that innovation will not be fully exploited, resulting in less development of society, a lack of solutions to the world's pressing needs, technology and sustainability.

Established organizations and startups in Norway must develop strategies and practices to drive growth and innovation. However, there needs to be more research on this topic, especially in Norway. Despite having greater resources and assets, large companies often fail to produce major innovations, while small startups with limited resources, frequently bring groundbreaking new products and services to market (Ries & Euchner, 2013). However, Haugli (2023) highlights that startups from Norway struggle with getting capital. While also highlighting that Norwegian startups are behind other countries when looking at financial support for startups. The level of entrepreneurial activity is decreasing compared with numbers from 2019, and it lags behind competing countries (Haugli, 2023). These are very bad numbers. However, several factors indicate that Norwegian organizations should be able to improve these stats. Norway consists of several great organizations, both startups and established. This examination has gathered perspectives representing four of these. Weiblen and Chesbrough (2015) point out that startups and established organizations both possess unique benefits that are absent in the other. More insight regarding strategies and practices for driving innovation in Norway can give a better understanding of what startups and established organizations can learn from each other. This study aims to contribute to understanding this topic and hopefully contribute toward an increased level of Norwegian entrepreneurial activity. This is done by investigating the strategies and best practices for driving growth and innovation in Norway's business environment, focusing on established organizations and startups.

“As the startup grows, matures, and develops, its innovation process slows. As a result, it falls victim to the problems that generated its initial advantage. Success leads to creative friction and no winner is ever secure.” (Freeman & Engel, 2007, p. 94). This statement demonstrates the fundamental principles of the current theoretical understanding and provides context to the differences between startups and established organizations when working with innovation. However, despite the challenges, established organizations and startups can overcome these obstacles by developing approaches based on the organization's characteristics, fostering a culture of collaboration and utilizing a holistic approach to innovation.

## 1.2 Research Questions

1. What are the strategies for established organizations and startups in Norway to drive growth through innovation in the face of increased competition and rapidly changing market conditions?
2. What are the best practices for established organizations and startups in Norway to drive growth through innovation in the face of increased competition and rapidly changing market conditions?
3. Do strategies differ between established organizations and startups for driving growth through innovation in Norway?
4. Do best practices differ between established organizations and startups for driving growth through innovation in Norway?
5. What established organizations can learn from approaches employed by startups and vice versa?

## 1.3 Research Approach

This study has applied a qualitative research approach to investigate the strategies and best practices for driving growth and innovation in Norway's business environment, focusing on established organizations and startups. An explorative approach of four organizations are used to uncover differences and similarities in strategies and best practices between these two types. The qualitative approach is chosen as it allows for a deeper understanding of the topic by exploring the informants' experiences, perceptions, and subjective realities (Gripsrud et al., 2016). The informants which participated in the thesis are presented in section 1.4 below. Zainal (2007) points out that qualitative research provides insights into the complex and dynamic nature of the phenomena under study. This is relevant as the study explores the strategies and best practices to drive growth through innovation in a rapidly changing business environment. The examination will use a combination of in-depth interviews and desk research, such as literature reviews to collect data.

## 1.4 Selection

To address the research question a foundation of new data is required (Gripsrud et al., 2016). The selection is based on four informants from different organizations who have agreed to partake in a case study, two from established organizations and two from startups. The case study is conducted to gather data from established organizations and startups in Norway. The data is gathered through in-depth interviews with critical company stakeholders with the following titles: Innovation Specialist, COO, Head of Business Development, and Principal Engineer - Innovation. Each informant who took part in the study possessed extensive experience with innovation. The interviews were semi-structured, with a focus on what

strategies and best practices the companies use to drive growth through innovation. Data from interviews are analyzed alongside with desk research using a comparative approach to identify similarities and differences between established organizations' and startups' strategies and best practices. The data from the interviews represent the informants' perspectives, NOT the company they work for.

#### 1.4.1 Marinés Fonseca Chaves

Marinés Fonseca Chaves is employed at SurplusMap, a technology startup specializing in data mapping and analysis solutions for organizations. As the COO and Head of Business Development, Chaves brings a wealth of experience, including a background in innovation at Equinor and advisory roles at various consulting firms (M. F. Chaves, personal communication, March 31, 2023). The team at SurplusMap consists of 4 employees. It was founded in 2020 and has its headquarter in Oslo. At SurplusMap they help businesses optimize their operations and make data-driven decisions to increase efficiency. They aim to bring together different groups and information to create a better outcome for everyone in the renewable energy field. This includes helping cities, energy companies, and new industries find the best places to work together and attract investments for green projects through the platform. In short, they simplify the process by giving all parties a digital platform to communicate and work together more efficiently, saving time and effort for everyone involved (SurplusMap, 2023).

#### 1.4.2 Trond Sorensen

Trond Sorensen, the Chief Commercial Officer at Norhybrid Renewables, brings invaluable perspective from working with various startups, including a successful exit to an established organization. His firsthand knowledge of the thesis topic provides valuable insights into innovation in both startups and established organizations (T. Sorensen, personal communication, April 14, 2023). Norhybrid Renewables was founded in 2020 and is headquartered in Porsgrunn. Their team consists of 4 members. Norhybrid specializes in developing, constructing, and operating large-scale wind, solar, and hydroelectric power projects. Norhybrid Renewables aim to provide clean, sustainable energy to help reduce carbon emissions. The company's experienced team works closely with different stakeholders to create a greener future (Norhybrid, 2023).

#### 1.4.3 Steinar Wasa Tverlid

Steinar Wasa Tverlid is an expert on innovation and a published author of the book "Radical innovation - Everybody can if they know how". Tverlid has committed several years to comprehensively understanding the subject, gaining valuable insights from his professional experiences at major corporations such as Hydro and Equinor. The knowledge he has

acquired on innovation is condensed in his book, highlighting the significance of radical innovation and how it can be facilitated. Tverlid is currently working as Innovation Expert in Equinor and has agreed to share his personal opinion on innovation. Last year, Equinor was among the top ten highest-earning companies in the world. Given the background from large, successful organizations, Tverlid provides a perspective of how established organizations work with innovation. It is important to note that even though Equinor is exemplified a lot in the results, these are the informants' own opinion and not spoken on behalf of Equinor (S. W. Tverlid, personal communication, March 30, 2023).

#### 1.4.4 Kaj-Robin Weslien

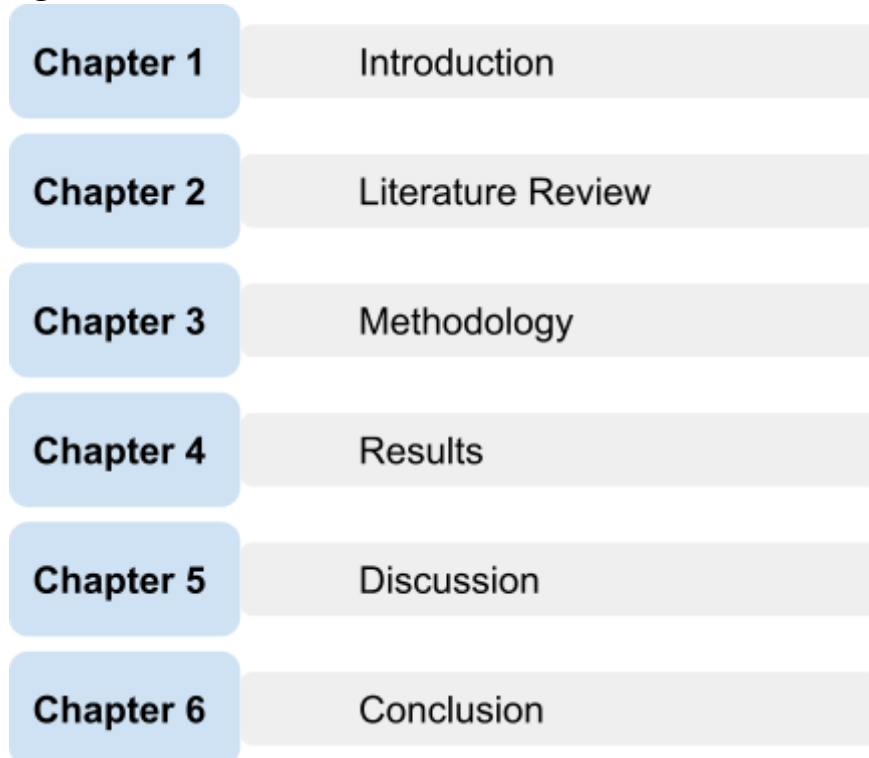
Kaj-Robin Weslien is a versatile person with years of experience at Kongsberg Maritime's multiple departments, and divisions. Weslien currently works in the Research and Innovation division, focusing on projects pushing innovative boundaries. While not directly responsible for external research projects, Weslien plays a pivotal role in facilitating internal innovation as a Principal Engineer - Innovation. Weslien has worked at Kongsberg Maritime for more than 12 years, and his experience includes robots, vision systems, signal processing, and image processing. He gradually assumed responsibility for the technical development of radar systems until his current position in Research and Innovation around a year and a half ago (K. J. Weslien, personal communication, March 29, 2023). This background makes for a great perspective of someone who has been on both sides of production and planning.

The company he works for, Kongsberg Maritime is a Norwegian technology company that provides innovative solutions for the maritime industry. Established in 1946, the company has a long history of delivering cutting-edge technology and engineering expertise to clients worldwide. Kongsberg Maritime's product portfolio includes advanced sensor systems, underwater robots, vessel automation systems, and simulation technology. With a strong focus on sustainability and environmental responsibility, the company aims to help its clients operate their vessels more efficiently and with lower environmental impact. Kongsberg Maritime is committed to providing world-class support to its clients throughout the lifetime of its products and systems, ensuring maximum uptime and operational efficiency (Kongsberg Maritime, 2023).

### 1.5 Thesis Structure

As illustrated in Figure 1, the thesis has six chapters, beginning with the introduction. Chapter two introduces the theoretical framework that will provide the foundation for the thesis' analysis of relevant innovation strategies and practices in the Norwegian business environment. In chapter three, the study's research design and methods are described. Chapter four presents the case study results, which are discussed in chapter five. The final chapter will conclude and outline possible future research directions.

**Figure 1:** Thesis structure



## Chapter 2. Literature Review

This chapter investigates the literature on innovation that is relevant for this examination. The primary aim of this review is to establish a robust and reliable foundation for the research questions and to gain a comprehensive understanding before presenting the results from the case studies. Literature review refers to using secondary data and re-analyzing previous research (Knopf, 2006). Even though this thesis will collect primary data through case studies, the secondary data collected through the literature review is vital for designing the questionnaire and analyzing the primary data. The literature review consists of relevant research based on the factors of the thesis statement and research questions. This chapter is divided into several subsections by subheadings. First, the thesis reviews literature on innovation, opening up for a deeper examination of two dimensions of innovation: radical and incremental innovation. This is followed up by reviewing the concept of ambidexterity. Continually, literature on strategy, innovation strategy and innovation practices are reviewed before some of the factors contributing to an innovation ecosystem. At the end, literature on established organizations and startups are reviewed.

### 2.1 Innovation

Innovation is the process of creating something new or improving something existing (Freeman & Engel, 2007). Innovation can be described as an invention that is implemented and brought to market (Chesbrough, 2003). Here Chesbrough (2003) makes an important point - the process that begins as an idea is not an innovation until it is introduced into the marketplace. Freeman and Engel (2007) highlights two essential factors for innovation. The first requirement is that resources must be mobile, which refers to the ability to reorganize resources for new projects and activities. The second requirement is that incentives must also be aligned so that those providing resources, especially financial resources, succeed along with innovators engaging in risky activities that require extraordinary effort. In other words, the person with the money (the investor) is happy when the innovator is happy, not only when the revenue is satisfying. There is a broad understanding of the importance of innovation, which is pointed out as a powerful explanatory factor behind firm performance differences. Successful companies that embrace innovation thrive, leaving behind their less innovative competitors (Chesbrough, 2010; Freeman & Engel, 2007; Viki et al., 2017, pp.10-37).

Schumpeter, often called the prophet of innovation, focused on individual entrepreneurship (McCraw, 2009). Schumpeter did view innovation as a social phenomenon and not necessarily involving something completely different from before. Combining resources and existing knowledge in new ways leads to innovation and this is a common understanding of innovation today. Schumpeter distinguished between five types of innovation: new products, new production methods, new ways of organizing businesses or industries, new suppliers, and establishment in new markets (Fagerberg et al., 2005). Even though Schumpeter's reflections on innovation remain helpful, they have been developed further over the years. Since then, interaction has been an important driver of innovation. Lundvall (1992) did contribute a lot to this understanding by highlighting the processes for learning and gaining knowledge as necessary for innovation. This involves interaction between a company and its external

environment (Fagerberg, 2003). The company should engage particularly with its customers and suppliers. Therefore, an innovation system is an economic system that features interactions between companies, their customers, suppliers, R&D environments and similar (Lundvall, 1992). In simple terms, innovation is not always the outcome of a single, straightforward cause. Still, it is complicated, has multiple factors, evolves from interaction, and is part of a more extensive system (Benner & Tushman, 2003; Fagerberg et al., 2005; Sheng & Chien, 2016)

A variety of disciplines has studied the complexity surrounding innovations. With a broader understanding of innovation, it is now known that dimensions such as culture, education, institutions, attitudes, policy, and infrastructure can be essential and decisive factors for innovation (Freeman & Engel, 2007; Morris, 2013). It is challenging to isolate innovation. However, by planning and facilitating interaction, the idea is to unleash innovation activities in both the business and public sectors (Jakobsen, 2010). Cluster theory is one example of a theory facilitating interaction and has gained widespread recognition, applied in various contexts (Arthurs et al., 2009; Røssevold & Frimanslund, 2022). Theories for establishing, implementing, maintaining and improving innovation management have been developed, such as the ISO 56000. ISO is short for the International Organization for Standardization (ISO, 2020). A standardization can be seen as a formula that describes the best way of doing something. Kiatpanont (2020) points out that the ISO 5600 standard is a guideline for how established organizations manage innovation. This shows that there is a formula for the best way of managing innovation in an established organization. However, whether or not the ISO 5600 nails the hammer on the head can be discussed. During the examination on innovation literature, there were limited references to ISO's standardization of innovation management. However, a subject discussed in innovation theory is the two dimensions of innovation - radical and incremental.

## 2.2 Radical and Incremental Innovation

Although innovation can encompass various levels, this paper primarily uses two distinct dimensions for the sake of clarity: radical and incremental innovation. Radical innovation constitutes breaking existing development patterns and finding a new direction (Tverlid, 2020, p. 18). Radical innovation is highlighted as key for growing businesses and economies (2009). It combines some markets, creates new ones, and eliminates old ones (Alexander & Van Knippenberg, 2014, p. 423; Tellis et al., 2009). While radical innovation involves more uncertainty and risk of failure, the potential rewards for companies or individuals that successfully navigate this type of innovation are immense (Alexander & Van Knippenberg, 2014, p. 423). On the other hand, incremental innovation is a steady, continuous process that focuses on enhancing existing processes, services, and products. The approach emphasizes gradual improvements and adaptations, allowing businesses to remain competitive and respond to evolving customer needs. Incremental innovation is generally less risky and requires less investment than radical innovation, making it an attractive option for many organizations (Benner & Tushman, 2003; Sheng & Chien, 2016).

Determining how an organization should prioritize radical and incremental innovation can be difficult. Incremental innovations, which encompass improvements to existing processes and products, contribute to maintaining short-term financial performance (Alexander & Van

Knippenberg, 2014, p. 423). However, the development of radical innovations in new businesses, services, and products is essential for securing a competitive edge and promoting growth. Leading firms tend to have more innovative portfolios, featuring a higher proportion of groundbreaking, next-generation projects. Consequently, the introduction of radically new products is linked to increased profitability (Alexander & Van Knippenberg, 2014, pp. 423-435; Christensen, 2013, pp. 3-20). However, Pisano (2015) makes a good point when stating that since Intel launched its major radical innovation (a microprocessor) in 1985, Intel has earned more than \$200 billion in operating income. Most of this has come from next-generation microprocessors (incremental innovation). The same works for companies like Microsoft, Apple, Facebook, and similar.. The argument is not that companies should focus only on incremental innovation. Rather, it is no single ideal type. Radical and incremental innovations can be complements, rather than substitutes. Pisano (2015) emphasizes how Intel, Apple, Microsoft, or Facebook would not have been able to gain massive profit from incremental innovations without first establishing the foundations through radical breakthroughs. Equally, companies that introduce radical innovation and are not able to follow up with incremental improvements will struggle to stay competitive. These examples illustrate the importance of both radical and incremental innovation. However, this balance can be challenging. The literature on this subject is further reviewed in the next subchapter - Ambidexterity.

## 2.3 Ambidexterity

Ambidexterity refers to the ability to use both the right and the left hand equally well (O'Reilly & Tushman, 2013). In the context of innovation, organizations that demonstrate ambidexterity excel at exploiting existing products to enable incremental innovation and at exploring new opportunities to foster more radical innovation (Andriopoulos & Lewis, 2009; O'Reilly & Tushman, 2013). Andriopoulos and Lewis (2009) describes searching as exploring new business models, products, or services. Often, this is characterized by learning, uncertainty, and experimentation. Startups typically exist in this phase, as they are often in search after a scalable and sustainable business model. Startups iterate on their ideas, pivot when necessary, and strive to validate their assumptions in the market (Andriopoulos & Lewis, 2009; Viki et al., 2017). A startup moves to the execution phase, once a scalable and repeatable business model has been found and validated. Scaling the business and optimizing the model are often done in this phase. Established organizations typically exist in this phase, where they execute their validated business models, focus on efficiency, and make incremental improvements to their products, processes, and services (Andriopoulos & Lewis, 2009; Chang & Hughes, 2012). Several academics in the field of innovation argue that organizations should balance between searching and executing (Andriopoulos & Lewis, 2009; O'Reilly & Tushman, 2013; Viki et al., 2017). This is supported by Pisano (2015), which is emphasizing the importance of having an innovation strategy that balances radical and incremental innovation. Viki et al., (2017) emphasizes that a balance in some cases can be essential for an organization's survival. To achieve this balance, the organization needs structures and processes that allow for both the search for new business models, while also effectively executing their existing ones (Andriopoulos & Lewis, 2009; Chang & Hughes, 2012; Viki et al., 2017). Most of the literature on this subject is from this perspective of an established organization. This might seem logical, since a startup can struggle with executing, when they do not have a business model to execute on. However, having established the



significance of ambidexterity in the context of innovation, the focus now turns to the strategic implications.

## 2.4 Strategy

While ambidexterity demonstrates the importance of innovation, strategy can serve as the key to determining the approach of implementing this. Strategy is a plan of action designed to achieve a long-term or overall aim (Pisano, 2015; Porter, 1996). It involves a deliberate and purposeful set of actions, decisions, and resource allocations that positions an organization for sustained success (Mckeown, 2019). Pisano, (2015) points out that it is common for organizations to regularly define and adjust their overall business strategy. This involves encompassing their scope and positioning while outlining how diverse functions of the organization, such as R&D, marketing, operations, and finance - will support it. While an overall business strategy is pointed out as important, several academics bring to attention the importance of having a plan of action for innovation - an innovation strategy.

### 2.4.1 Innovation Strategy

Innovation strategy is an essential aspect of an organization's long-term planning. It is providing direction for the generation and implementation of new ideas, products, and processes to maintain a competitive advantage (Pisano, 2015). Companies' innovation strategies have a significant impact on which innovations are ultimately realized (Schilling, 2010). Lacking an innovation strategy, the organization may pursue conflicting priorities internally, despite having a clear business strategy. Aligning innovation with strategic vision ensures cohesion and resource effectiveness (Pisano, 2015). Crafting a robust innovation strategy requires organizations to align their innovation goals with their broader strategic objectives, striking a balance between risk and reward (Anthony et al., 2006; Pisano, 2015). Despite that much of the innovation literature emphasizes the importance of an innovation strategy, academics and practitioners highlight that firms often fail to articulate strategies that effectively align their innovation efforts with their overall business strategy. Moreover, several academics highlight that the lack of an innovation strategy is often identified as the main reason for challenges in enhancing innovation within organizations (Anthony et al., 2006; Pisano, 2015). "Like the process of innovation itself, an innovation strategy involves continual experimentation, learning, and adaptation" (Pisano, 2015). This perspective underscores the importance of taking action, and that perfection is not immediately necessary. Having an innovation strategy opens up for making correct trade-off decisions and selecting optimal practices for the organization (Freeman & Engel, 2007; Pisano, 2015). Effective innovation management is critical for organizations looking to stay ahead in an increasingly competitive marketplace and maintain their competitive edge. This is often where a startup can find its competitive advantage (Freeman & Engel, 2007). This can be achieved through various approaches, including developing an internal structure that stimulates creativity and knowledge (Pisano, 2015). While the innovation strategy is essential for planning and providing the direction for the organization, the organization needs tools for accomplishing the day-to-day work. These tools are referred to as innovation best practices.

## 2.5 Innovation Best Practices

Innovation best practices are the methods, approaches, and techniques that the organization uses to generate novel ideas, products, or services, and transform them into value-creating solutions (Jong et al., 2015). It is the practical way in which innovation is achieved. These practices enable organizations to stay competitive, adapt to evolving market conditions, and meet customer demands (Ebersberger et al., 2012). Innovation practices can have a significant influence on the success of innovation efforts (Ebersberger et al., 2012; Jong et al., 2015; Spithoven et al., 2013). Examples of innovation practices include:

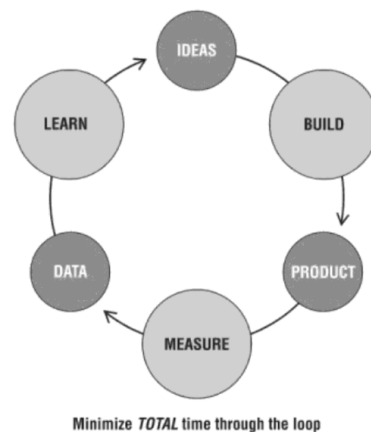
### 2.5.1 Lean Thinking

Lean Thinking emphasizes validated learning, rapid iteration, and customer feedback, allowing businesses to create successful products and services quickly and efficiently, with minimal waste (Hines et al., 2004; Thangarajoo & Smith, 2015; Viki et al., 2017). Lean startup practice encourages entrepreneurs of all company sizes to embrace continuous innovation through rapid iteration and validated learning. This approach enables the development of successful businesses by swiftly adapting to market conditions and customer needs (Ries, 2011).

### 2.5.2 Build-Measure-Learn

Build-Measure-Learn emphasizes the importance of rapid iteration and validated learning. As seen in Figure 2, this is an iterative process which involves building a minimal viable product (MVP), measuring its performance through customer feedback using key metrics, and learning from the results to make data-driven decisions for improvements. By following this cycle, entrepreneurs can quickly test hypotheses, adapt to changing market conditions, and optimize their products or services to address customer needs and preferences better, ultimately enhancing their chances of success (Ries, 2011; Viki et al., 2017). However, it is important to note that these methods do not consider the process before building the MVP.

**BUILD-MEASURE-LEARN FEEDBACK LOOP**



**Figure 2:** Build measure learn cycle, adapted from Ries (2011, p. 75).

### 2.5.3 Open Innovation

Open Innovation involves collaborating with people and organizations outside the company. This includes for example external partners, customers, suppliers, universities, and research institutes. Open Innovation can be used to access new knowledge and resources, thereby accelerating innovation and reducing development costs (Chesbrough & Appleyard, 2007; Grönlund et al., 2010).

#### 2.5.4 Crowdsourcing

One common practice to use for innovation is Crowdsourcing. Instead of relying solely on a selected group of experts (such as their own employees), the problem is opened to anyone (the crowd). This can involve posting a problem on a Crowdsourcing platform (such as InnoCentive), where the users can solve the problem, and can be offered a financial reward for the work (Pisano, 2015).

#### 2.5.5 Stage Gate

Stage Gate is a linear product development process that divides innovation efforts into distinct stages with gates serving as checkpoints to evaluate progress, make decisions, and allocate resources. Stage Gate can prevent entrepreneurs from spending too many resources on developing a product, without the supporting data to do so (Cooper, 2014; Grönlund et al., 2010).

#### 2.5.6 Corp-Up

Schättgen et al., (2019, p. 24) define a Corp-Up as a collaboration intended to create business opportunities. Ideally the calculation looks like this:  $1+1=3$ . Together they are stronger. There can be all kinds of collaborations, but in many cases, it is a mature company that steps up with resources, customer base, and marketing, whereas the startup delivers a product that generates value through the resources of the mature company (Schättgen et al., 2019, p. 25).

Together, these examples illustrate how innovation practices can foster creativity, enable organizations to adapt to changing market conditions, and ultimately contribute to long-term growth and success. Innovation practices are not fixed and can vary between firms, change over time, and adapt to fluctuations in the market. Therefore, there is no universal formula for achieving positive performance, and various paths can lead to the same desired outcome (Edwards-Schachter, 2018; Ortt & Van der Duin, 2008).

### 2.6 Innovation Culture

An innovation-centric culture is characterized by an organization that genuinely appreciates and fosters innovation, and empowering individuals to make innovation happen. This involves an environment that cultivates employees' capacity for innovation, embraces risk-taking, and supports personal growth and development (Dobni, 2008; Martín-de Castro et al., 2013). This kind of environment has the tools to help with new ideas, a setting where they can be put into action, and the practical actions needed to make a difference in the market and create value (Martín-de Castro et al., 2013). Büschgens et al., (2013) highlight that organizations require a culture founded on deeply held common values and beliefs, which acknowledge the contributions of innovators and accept the possibility of failure. Tverlid (2020) emphasizes a well-functioning incentive system as a key enabler for constructing a sustainable innovation culture. This can include monetary/salary, freedom to innovate, budget to innovate, recognition, titles, job security, and more. Incentive systems can also be useful in other aspects of activities related to innovation, such as measuring how many initiatives go through the system and eventually get implemented.

## 2.7 Measuring Innovation

In today's highly competitive business environment, innovation has evolved into an essential function and to manage innovation effectively, measuring innovation can be crucial. However, measuring innovation has consistently proven to be a challenging task (Nandal et al., 2020). This can be because of the many dimensions of innovation (Hagedoorn & Cloudt, 2003) The importance of measuring innovation is demonstrated in a global survey for McKinsey, where Chan et al., (2008) revealed that companies that get the highest returns from innovation use more effort to measure their innovation activity. The report does however not consider how the organization is working with innovation, but emphasizes the importance of innovation measurement and shows a need for measurement in many of the informants. This is also supported by Andrew et al., (2009) who point out how companies often come too short regarding measuring their innovation efforts - resulting in decisions based more on guesswork than on hard facts. Viki et al., (2017) highlight that traditional accounting methods may work for measuring incremental innovation to core products, but measurement for radical innovation requires different tools. Additionally, Viki et al., (2017) propose to track three sets of innovation KPIs (key performance indicators): Firstly, Reporting KPIs - which tracks the activity and progress of new ventures as they move from idea to scale, such as validation velocity. Secondly, Governance KPIs - which helps determine whether to continue investing in specific ideas, such as how close teams are to finding product-market fit. Lastly, Global KPIs - used to evaluate the overall innovation performance within the business, such as the percentage of revenue generated in the last three years.

## 2.8 Innovation Ecosystem

The thesis has covered some of the aspects of innovation, innovation strategy, innovation practices, innovation culture, and the importance of measuring innovation. Combined, these principles create an innovation ecosystem. Viki et al., (2017) emphasize how each of these parts relies on each other, and how it is vital to apply all these principles to ensure success. For illustration, Pisano (2015) points out that without a clear innovation strategy, attempting to enhance innovation can quickly devolve into a collection of widely praised but disjointed

best practices. All parts of the innovation ecosystem contribute to the cultivation of innovation. Viki et al., (2017) underscore how nurturing an innovation spirit and providing essential resources, an innovation ecosystem empowers the organization and individual to adapt, evolve, and thrive in an ever-changing global market.

## 2.9 Organizations

Innovation is a crucial part of organizations seeking to thrive in today's fast-paced and rapidly changing business environment (Haugli, 2023; Viki et al., 2017). It can be seen as the driving force behind development in technology, to market disruptions, and the overall economic growth (Viki et al., 2017). Nevertheless, the pursuit of innovation is not a one-size-fits-all approach, at least not at the current knowledge about innovation. This can be seen in how each organization has different innovation best practices, some have innovation strategies, while others do not. However, when it comes to fostering innovation, it can be natural to separate organizations into two distinct categories: established organizations and startups. In order to differentiate between these two types of organizations, the study has employed the two distinct definitions. An established organization is defined as one that has been in operation for a significant amount of time and has a proven history of financial stability and growth (Sapienza et al., 2006; Zahra et al., 2006). Whereas a startup is a company in the early stages of business operations characterized by high uncertainty and risk (Ries & Euchner, 2013; Sapienza et al., 2006; Zahra et al., 2006). There are, however, more that distinguishes an established organization and a startup, further differences are reviewed in 2.9.1 and 2.9.2, and illustrated in Table 1.

**Table 1.** Comparison of startups and established organizations

Startups	Established Organizations
<ul style="list-style-type: none"> <li>Typically, small and new companies (Freeman &amp; Engel, 2007; Sapienza et al., 2006; Viki et al., 2017)</li> </ul>	<ul style="list-style-type: none"> <li>Typically, large and well-established organizations (Freeman &amp; Engel, 2007; Sapienza et al., 2006; Viki et al., 2017)</li> </ul>
<ul style="list-style-type: none"> <li>Have limited resources and may struggle to secure funding (Freeman &amp; Engel, 2007; Sapienza et al., 2006; Viki et al., 2017)</li> </ul>	<ul style="list-style-type: none"> <li>Have established financial resources and may have access to more funding opportunities (Freeman &amp; Engel, 2007; Sapienza et al., 2006; Viki et al., 2017)</li> </ul>
<ul style="list-style-type: none"> <li>Operate in a dynamic and rapidly changing environment (Freeman &amp; Engel, 2007; Ries &amp; Euchner, 2013; Sapienza et al., 2006; Viki et al., 2017; Zahra et al., 2006)</li> </ul>	<ul style="list-style-type: none"> <li>Operate in a relatively stable and established market (Sapienza et al., 2006; Viki et al., 2017)</li> </ul>
<ul style="list-style-type: none"> <li>Are often flexible and adaptable to change (Sapienza et al., 2006; Viki et al., 2017)</li> </ul>	<ul style="list-style-type: none"> <li>May be slower to adapt to change and may have more bureaucracy (Sapienza et al., 2006; Viki et al., 2017)</li> </ul>
<ul style="list-style-type: none"> <li>May have a less defined organizational structure and roles (Freeman &amp; Engel, 2007; Sapienza et al., 2006)</li> </ul>	<ul style="list-style-type: none"> <li>Typically have a well-defined organizational structure and clearly defined roles and responsibilities (Freeman &amp; Engel, 2007; Sapienza et al., 2006)</li> </ul>
<ul style="list-style-type: none"> <li>May have a more informal culture and less established policies and procedures (Freeman &amp; Engel, 2007; Viki et al., 2017)</li> </ul>	<ul style="list-style-type: none"> <li>Typically have a more formal culture and well-established policies and procedures (Freeman &amp; Engel, 2007; Viki et al., 2017)</li> </ul>
<ul style="list-style-type: none"> <li>May have a higher level of risk and uncertainty (Freeman &amp; Engel, 2007; Graham, 2012; Viki et al., 2017)</li> </ul>	<ul style="list-style-type: none"> <li>Typically have a lower level of risk and uncertainty (Freeman &amp; Engel, 2007; Graham, 2012; Viki et al., 2017)</li> </ul>
<ul style="list-style-type: none"> <li>May have a more entrepreneurial and innovative mindset (Freeman &amp; Engel, 2007; Sapienza et al., 2006; Zahra et al., 2006)</li> </ul>	<ul style="list-style-type: none"> <li>Typically have a more traditional and established mindset (Freeman &amp; Engel, 2007)</li> </ul>
<ul style="list-style-type: none"> <li>Often focus on growth and scaling the business (Graham, 2012; Viki et al., 2017)</li> </ul>	<ul style="list-style-type: none"> <li>Often focus on maintaining market position and improving efficiency and profitability (Graham, 2012; Viki et al., 2017)</li> </ul>

## 2.9.1 Established Organizations

Established organizations have been operating in their respective industries for a significant period and have gained recognition, stability, and market share. Established organizations typically have well-defined structures, processes, and business models, which can sometimes hinder their ability to adopt or implement radical innovations rapidly (Freeman & Engel, 2007). However, they often possess valuable resources, industry knowledge, and networks that can be leveraged to drive incremental innovations and improve existing products or services. Balancing both radical innovation and incremental innovation with the defined structures, processes, and business model which comes with an established organization, can be a critical challenge for these organizations as they strive to maintain competitiveness in an evolving market (Freeman & Engel, 2007; Pisano, 2015; Viki et al., 2017).

## 2.9.2 Startups

A startup company is a newly established business typically focused on developing a unique product or service to meet market demand or create market demand. A startup is a business structured for rapid growth (Graham, 2012). Startups are often characterized by their innovative ideas, agility, and ability to pivot quickly in response to market trends and changing consumer needs. With a strong focus on growth and capturing market share, startups often explore novel ideas and disruptive technologies to differentiate themselves from established competitors. They tend to operate with Lean structures and processes, which can facilitate rapid decision-making and streamlined execution of innovative projects. Startups play a crucial role in the innovation ecosystem, driving change and pushing the boundaries of what is possible in various industries (Freeman & Engel, 2007). One of the critical characteristics of a startup is its entrepreneurial spirit, with founders and employees typically sharing a strong passion for the business and a desire to bring their ideas to life. This drive and determination often translate into a fast-paced work environment, where ideas are quickly turned into action and the focus is on progressing rapidly towards the company's goals (Freeman & Engel, 2007; Sapienza et al., 2006; Zahra et al., 2006). According to Ries (2011), startups tend to be Lean, with limited resources and a small team. Employees often wear multiple hats and are expected to be highly adaptable and self-sufficient. Despite these challenges, many startups can grow quickly, leveraging their unique value proposition to attract customers and investors. Additionally, startups often have a culture that values creativity, risk-taking, and continuous learning, which can make for a dynamic and exciting work environment (Sapienza et al., 2006; Zahra et al., 2006).

## Chapter 3. Methodology

In this chapter, the choices made in regard to research design and research methods will be explored. Insight and context will be provided as to why a qualitative approach with multiple case studies was selected. Further, the study's reliability, validity, and ethical assessment will be discussed.

### 3.1 Selection of Research Method

Research method refers to the process used by the researcher when collecting empirical data. Empirical data is data about reality (Nyeng, 2012). Leedy and Ormrod (2021) describes the research method as the process of conducting research involving collecting, analyzing, and interpreting empirical data in order to enhance the understanding of a phenomenon of interest or concern. According to Jacobsen (2022), the choice of research method is determined by the questions the researcher wants to answer. The research process is a methodical approach that involves identifying the purpose, managing data, and communicating results, all of which are carried out within established frameworks and according to existing guidelines (Clark, 1997). These frameworks and guidelines offer direction on the scope of the research, its methodology, and the types of conclusions that can be drawn from the data collected (Williams, 2007).

### 3.2 Qualitative Research

The decision to employ a qualitative approach in this thesis is based on the desire to document the rich, intricate, and individualized experiences that form the basis of the innovation process. This method delivers the depth and adaptability required to fully understand and interpret the dynamic nature of innovation because it places a strong emphasis on the human aspects of behavior and creativity (Patton, 2002). Qualitative research involves the collection and analysis of non-numerical data, with the aim of gaining insight into social phenomena and human behavior (Patton, 2002). An advantage of a qualitative approach is that the researcher can gain a deeper understanding of human phenomena, qualitative research emphasizes the personal experiences and meanings of individuals in a flexible and exploratory manner (Easton, 2010; Patton, 2002). It enables researchers to gather rich, detailed data that can reveal intricate, varied elements of social life using several techniques, including interviews and observations, however, the need for more generalizability and risk of researcher bias in qualitative research is frequently criticized (Easton, 2010). Studies using qualitative approaches must apply precise data gathering and analysis strategies, such as the use of numerous sources of data and participant validation, to address these obstacles and maintain the reliability and credibility of their findings (Golafshani, 2003).



### 3.3 Case Study

Due to the nature of the research objective and a desire to gain a deep understanding of how organizations strategically and in practice work with innovation, a case study is chosen for this thesis. This is a complex subject where the importance of acquiring a comprehensive understanding to shed light on the research problem in a meaningful way was recognized. This consideration has been taken into account in the selection of research design. Case studies are a common method of conducting qualitative research, where a single entity or phenomenon is examined in-depth and gives insights from an extended period (Zainal, 2007). The case study approach allows a researcher to conduct a thorough investigation of data within a specific context. Typically, this method focuses on a small geographic region or a select group of individuals as the subjects of the study (Zainal, 2007). Essentially, case studies delve into and analyze contemporary real-life phenomena by conducting a detailed examination of a limited number of events or conditions, along with their interrelationships (Zainal, 2007). According to Yin (2018), case studies are particularly useful in situations where the boundaries between phenomenon and context are unclear, and when the research question is focused on how or why a particular phenomenon occurs. Additionally, case studies enable researchers to examine multiple sources of data, including interviews, observations, and documents, to gain a comprehensive understanding of the phenomenon under investigation (Yin, 2018). Overall, the case study approach is well-suited for this topic as it allows for a comprehensive, in-depth exploration of innovation strategies and practices within diverse organizational contexts, providing a complete understanding of the factors that contribute to successful innovation.

### 3.5 Data Collection

In this study, data is gathered through individual interviews. Individual interviews are considered an essential method for collecting data within a qualitative approach and are one of the most common methods for collecting primary data (Jacobsen, 2022; Langley, 1999; Major & Savin-Baden, 2010). The goal of the data collection in this thesis is to obtain rich and comprehensive data about innovation, therefore arguing why it is appropriate to use individual interviews in the data collection (Jacobsen, 2022; Yin, 2018). In this study, the data collection is obtained from four different informants, but a total of six interviews were conducted. Seidman (2006) encourages scholars to start a pilot project to assess the effectiveness of their research plan as this would enable them to evaluate their capacity for performing research and comprehend the practical considerations involved. Following this advice, prior to the four main interviews, two pilot interviews were conducted on acquaintances with backgrounds similar to those of the case study stakeholders. Based on these pilot interviews minor changes to the questionnaire and interview settings were made, as well as gaining valuable practice in conducting interviews.

The data collection is done using a semi-structured in-depth interview as the primary data collection method. A semi-structured approach is an effective way to strike a balance between standardization and flexibility during an interview (Schmidt, 2004). Conducting semi-structured interviews is suitable for addressing the research question, as they allow for follow-up questions. The interview guide is developed with relatively open questions to gain better insight into the informants' thoughts and experiences. An interview guide can be

defined as an outline for how an interview should be conducted (Johannessen, 2021). Since qualitative methods do not aim to address the general and typical, but rather the unique and special, they do not strive for a representative sample. It is therefore possible to conduct individual interviews, as the scope does not need to be very large (Jacobsen, 2022; Langley, 1999) Case studies do not aim to generalize findings either, so a representative sample is not necessary, what is necessary is to interview candidates who are representative of the context for which information is desired (Yin, 2018). Before the interview, a selection process was conducted by searching for innovative organizations, including startups and established organizations. To get the most relevant information from the informants, it was important to pinpoint those who worked closely with innovation as that is the research topic of the thesis. Informants are those who have first-hand knowledge about a particular phenomenon. These informants act as a measure for the context being studied in this situation (Jacobsen, 2022). Table 2 shows an overview of the informants who participated in the study.

**Table 2.** Overview of informants

<b>Name</b>	<b>Title/Role</b>	<b>Referred to as</b>	<b>Duration</b>	<b>Interview setting</b>
Marinés Fonseca Chaves	Chief Operations Officer & Head of business development	In the results: Chaves   Startup  Otherwise: Chaves	39 Minutes	Digital
Kaj-Robin Weslien	Principal Engineer - Innovation	In the results: Weslien   Established organization  Otherwise: Weslien	56 Minutes	Digital
Steinar Wasa Tverlid	Innovation Specialist	In the results: Tverlid   Established organization  Otherwise: Tverlid	1 Hour and 20 Minutes	Face to face
Trond Sorensen	Chief Commercial Officer	In the results: Sorensen   Startup  Otherwise: Sorensen	51 Minutes	Digital

## 3.6 Data Processing

To process the data from the interviews, this thesis utilized a qualitative content analysis based on the transcriptions from the interviews. A qualitative content analysis arranges the responses into self-defined categories based on the interview guide when relevant information from the transcriptions is chosen (Saunders et al., 2016). The process of writing down an interview, observation, or group discussion is called transcription (Johannessen, 2021). To compare the information more easily the interviews were transcribed, providing a clear picture of the data. Afterwards in this process, a data reduction was performed to remove unnecessary data. The responses were categorized based on the research questions to provide oversight of the responses and to make sure to include everything of significance. The interview content was organized using qualitative content analysis (Saunders et al., 2016).

## 3.7 Evaluation of Research Quality

Any research study, including case study research, must address validity and reliability to demonstrate and communicate the thoroughness of research processes and the legitimacy of research findings (Roberts & Priest, 2006). This section examines the quality of the research through validity and reliability of the case study, as well as identifying any areas for improvement and justifying the methodological choices.

### 3.7.1 Validity

Validity refers to the extent to which the interpretations reached are valid in relation to the reality being studied. It is common to differentiate between internal and external validity (Bernard, 2006; Yin, 2018). Internal validity pertains to the confirmability of the study, focusing on whether the interpretations arrived at align with the informants perception of reality (Jacobsen, 2022). Since the topic revolves around innovation, conducting research with high validity poses some challenges. This could be because all the informants and informants wanted to highlight their positive contributions to the innovation processes and the companies they represent. Due to the ongoing work with innovation, the study must also consider that the informants may not want to explicitly point out challenges in their processes. The reason for this could be their fear of negative consequences for themselves or organizations associated with them. To reduce this risk, research questions and the problem statement are formulated in a way that focuses on the mechanisms important to the various actors or structures. When interviewing, the questions were open ended and allowed for follow-ups and discussion, rather than a straightforward approach to enable a more depoliticized approach. External validity explains the transferability of the research findings, for example the extent to which the findings can be applied to other contexts (Bernard, 2006; Grønmo, 2016). Since case study is used as a research design, it is an argument that the findings have limited transferability. This is because the findings in the study will be influenced by industry- and organization-specific factors. To enhance the validity of the study, respondent validation is employed. After completing the analysis, the quotes used were sent to the informants for approval. This allowed the informants to correct or potentially remove

certain statements that were used. This process contributes to increasing the validity of the study.

### 3.7.2 Reliability

Reliability concerns the accuracy of the research data. This includes how data is collected, which data is used, and how it is processed (Johannessen, 2021). Reliability in a study aims to minimize errors and biases (Yin, 2018). To check the reliability in a qualitative study, one can either conduct the same study on the same sample at different time points or have multiple researchers investigate the same phenomenon and arrive at the same results (Johannessen, 2021). It should be noted that the informants behavior, mood, and attitudes may change over time. If the same study were conducted at a later time, it is likely that the results could be different (Grønmo, 2016). Therefore, the goal is not to replicate the research, but rather to ensure the reliability of the study's findings.

The reliability of the data depends on the data collection method and how the data is analyzed. It is important to be critical of potential sources of error that can occur during the interview and data processing phases (Golafshani, 2003; Yin, 2018). To ensure reliable findings, the study has tried to control each step to identify and avoid possible sources of error. In the use of semi-structured interviews, several factors can threaten reliability (Yin, 2018). Attention must be given to conditions related to the interviewees, the interview situation, and the role as interviewers. These factors can significantly influence the quality of the investigation (Svartdal, 2015). In retrospect, having conducted three interviews digitally and one face to face may lead to bias as the environments were not similar (table 2.). However, due to the limited time and resources, it was difficult to have a face to face meeting all. Respondent bias can be related to the informants providing answers they think the interviewers want to hear rather than their genuine opinions (Corbin, 2007). A conscious approach of not asking leading questions was used to reduce respondent bias. The pilot interviews provided a good foundation to reflect on which questions to use, ensuring that the final interview guide remained open-ended. During the interviews, an effort to adapt comments, tone of voice, and non-verbal communication to avoid leading the interviewees to provide answers different from what they truly meant were made. Follow-up questions were asked in situations where certain statements were unclear. Corbin (2007) emphasizes this as important when conducting interviews. The quality of the interviews and good transcriptions are crucial to strengthening reliability (Kvale & Brinkmann, 2009). To increase the reliability of the investigation, a thorough and accurate transcription of the interviewees statements are performed and work has been done to avoid subjective interpretations of their direct quotes.

## 3.8 Ethical Guidelines

Establishing an ethical framework that safeguards the interests of each individual who participates in research is essential. Ethical concerns in qualitative research differ from quantitative research (Orb et al., 2001). It must be considered to obtain permission from the Norwegian Centre for Research Data (NSD) before processing any personal information for a research project. The NSD notice form was finished and authorized before the scheduled

interviews began. In this scenario, the audio recordings of the interviews contain sensitive data, which can be information that can be used to identify an individual. The concept of anonymity, which guarantees that study participants cannot be identified and is a classic component of this framework, ensures that study participants' privacy.

However, for this case study, to allow for non-anonymity of the participants, the study has derived from the standard norm in the context of the case study. This choice was decided after carefully considering the special circumstances and potential advantages this method may have for the research. The case study addresses a specialized topic where individual viewpoints are particularly important because of the participants' unique positions or expertise. Because the informants are distinguished specialists or carry highly relevant experience in their areas, the research is significantly enhanced by their insights' legitimacy, reliability, and quality. By providing an additional layer of context and allowing us to take advantage, the non-anonymous approach increases the total value and significance of the research. The study may provide a better, more complex understanding of the subject at issue connecting their insights with their identities.

Ellersgaard et al., (2022) makes a strong argument in favor of non-anonymous studies, especially when speaking with elites. Since anonymity might decontextualize statements and possibly mislead the credibility of the interview, it is argued that avoiding anonymity improves contextual awareness. Furthermore, maintaining anonymity with elites is frequently difficult because elites are easily identifiable. To facilitate a more transparent collaboration of knowledge, non-anonymity provides an environment for engagement and can help distinguish between "what people say" and "what people do." When people can put a name and a face with their position, researcher transparency increases and maintains critical viewpoints (Ellersgaard et al., 2022). It is important to stress that this strategy does not undermine the dedication to ethical research. Each responder gave their explicit, informed agreement after being made aware of the study's non-anonymous character. They were provided with the choice to withdraw at any time without suffering any consequences, and it was made sure they knew their rights, the goal of the study, and how the data they provided would be utilized (*Sikt – Kunnskapssektorens tjenesteleverandør* | Sikt, n.d.). Additionally, all necessary precautions to safeguard the participants from harm are taken. All replies were utilized solely for the study, and sensitive data was handled with the utmost discretion. In summary, the choice to deviate from anonymity was made with a specific goal and a commitment to preserve ethical standards. It was carried out to maintain the study's credibility, provide a nuanced view of the topic, and guarantee that the responses gathered are as valuable and effective as feasible, while also preserving the informant's interests.

### 3.9 Weaknesses

This subchapter addresses two significant weaknesses regarding perspectives and data discrepancy, the following subchapters explain why and what measures have been taken to minimize the bias related to it.

### 3.9.1 Switching Perspectives

In the case study, one of the informants, originally expected to provide insights from an organizational standpoint, informed that the person could only contribute their personal views. This adjustment called for a change in the analysis for this specific respondent, moving it from an organizational perspective to an individual one. The paper opted to take a person-based perspective for each respondent to maintain consistency. This restriction presents a potential imbalance in comparing established organizations and startups, even if it does not invalidate the respondent's contributions. The thesis argues that readers should exercise caution when interpreting the results considering the findings connected to this responder could not accurately reflect the organization's position. Despite this drawback, the case study offers insightful perspectives into the dynamics and difficulties established organizations and startups. This is made possible by the informants' own experiences.

### 3.9.2 Data discrepancy

It is important to recognize that, in this study, one respondent provided significantly more data than the other three participants combined. This could lead to biases being integrated into the analysis and interpretation of the results. The result section addresses this by highlighting the data difference and being honest about not having grounds for comparing the data. Focusing on the most important themes, the study carefully employs the data from the respondent who made the most significant contribution. Findings are categorized or arranged by themes to ensure a balanced viewpoint and to reflect all informants' perspectives and remain transparent to potential biases in order to present an accurate representation of the research issue despite the uneven distribution of the data.

## Chapter 4. Results

The results section of a master thesis is a critical component where the research findings are presented systematically and organized. For studies incorporating case study interviews as a research method, this section serves as a platform to showcase the empirical data collected through the case study interviews and lay for the upcoming analysis and discussion. This thesis is structured as a comparative study of established organizations and startups. As explained in the section on research methods, case study is used to collect data for the research. During the interviews, informants were allowed to express themselves openly and without interruption, while adhering to the established time constraints. Consequently, the interviews yielded insights extending beyond the original focus, encompassing a broader range of topics and perspectives. However, the insights extending beyond the original focus was not discussed were not discussed in all the interviews, and therefore comparatively it can not be used. Despite this, the quality of the learnings were too good to discard, therefore some of the quotations are to some degree outside of the main topic.

This section will showcase the findings gathered from case study interviews conducted during this master thesis. A detailed account of the data collected will be provided. The results will be presented in an organized manner, including relevant context to the quotations. The implications of the results for the research questions or objectives will be critically analyzed, and connections to existing literature or theories will be discussed in the separate chapters. As previously stated, the data reflects the personal viewpoints of the informants, not the organizations they are employed by. The results are categorized within the following topics:

- Innovation strategy
- Innovation practice
- Innovation culture
- Measuring innovation
- Advantages of a startup
- Challenges of a startup
- Advantages of an established organization
- Challenges of an established organization
- Learning from one another

### 4.1 Innovation strategy

Innovation strategy refers to an organization's plan or approach to drive innovation. The innovation strategy involves systematic generation, development, and execution of new ideas, services, processes or products that create value for the business and its customers (Pisano, 2015). The importance of innovation strategy varies across organizations, as seen from the different informants' perspectives from established organizations and startups. Weslien describes an innovation strategy approach involving dedicated time, employee surveys, and collaboration with leaders.

*When I started in this role, we focused on developing a strategy that addressed employee motivation,*

organizational structure, and fostering innovation to maximize business value. Time was set aside, and two of us were allowed to work quite focused over two to three months. We were browsing and mapping best practices outside of our company and consulting internal experts on the field - both employees previously working with innovation management and younger employees with education on the subject. We also sent out a survey to all employees, designing 20 to 30 questions to understand our existing innovation culture. We gathered feedback and received input on our thoughts. There was also a dialogue with leaders who had a passion to push this initiative further - **Weslien | Established organization**

In contrast, Sorensen from Norhybrid emphasizes that innovation is more of an ingrained daily mindset than a formalized strategy.

*No, I wouldn't say that there isn't a need for it, but what I'm trying to say is perhaps it's not about creating one for us. It's more ingrained in our thinking on how to be innovative daily rather than creating a document that describes it. Maybe that's the way I'm trying to say it. - Sorensen | Startup*

Chaves from SurplusMap shares a similar view as Sorensen, highlighting that innovation is part of the company's DNA and that the strategy is more about survival than a rigid plan.

*So I think we have a lot of innovation happening every day. I think that's part of the DNA of the company. But strategy, an innovation strategy, I think that's not necessarily there as a strategy. It's just more as something we need to have to survive. In corporations, at least in my experience, you do have a strategy, right? We need to do it, I don't know. We need to create businesses outside the oil and gas sector that make this amount of money in the next amount of years. And these are the areas that we're going to look for. Very clear strategy. Here, it's more like we need to make this work. How do we make it work? This is the element that we have and how do we combine them? How do we pivot? How do we use our partners? - Chaves | Startup*

Tverlid illustrates how innovation can support and shape a company's strategy. He emphasizes the importance of aligning innovation strategy with the overall organization strategy. Tverlid also highlights the value of making strategy and goals tangible and visual, allowing employees to understand the bigger picture. However, he acknowledges that the potential risk of visual failure may hold the company back in doing so.

*The role of innovation is not to change the strategy, but to assist in meeting it. One part of Equinor's innovation strategy is to help the company meet its overarching goal of becoming greener. We do not fit to lead the energy transition for several reasons, including our tendency to stick to incremental innovation. However, we have enormous experience with complex installations, to get things out there, put them in place, and connect them with the rest. We know more about this than most people. Thus, since a part of the company's strategy is to be more green, we need to innovate on transitioning to green energy. We need to talk with our strategy and innovation teams to see what's possible. We want to be greener, but we must decide how to do that. Should we focus on using wind or solar power? Can we do anything else? We have to be creative and innovative in order to figure out how to reach the strategy. - Tverlid | Established organization*

Tverlid discusses Equinors' investment in the Commonwealth Fusion System and highlights the importance of innovation in directing a company's strategy, while working together to move the company in the desired direction.

*We have a stake in Commonwealth Fusion System, which focuses on fusion, a green energy solution that may potentially resolve the entire energy crisis. In contrast to the fission used in conventional nuclear power, fusion involves two atoms slamming together to form a heavier atom, e.g. combining the smallest atoms, hydrogen to form one helium atom, generating a massive energy surplus. We invested in this company because someone believed it was viable, demonstrating how innovation can inspire and direct strategy. Our role in relation to strategy is to help the company move in the desired direction. While I have been involved in innovation for a long time, I have never challenged the strategy directly*



*but have instead attempted to help the team understand what can be done with it. Together, we have examined the strategy and worked on various aspects to steer the company in the right direction. - Tverlid | Established organization*

Tverlid emphasizes the need for tangible and visual strategies, especially in large companies, to keep employees motivated and focused on the ultimate goals, despite potential fears of failure.

*What I believe is incredibly important when discussing both innovation and strategy is the need for tangibility, especially in large companies. This could be done by having a comprehensive visual plan, where employees can understand what they need to achieve, and what the 'ultimate' goal is. Knowing the big picture makes it much easier for people to be motivated. I think this approach is more effective than relying on vague, abstract concepts. However, the fear of everybody seeing that you fail to reach your goals can hold back the company. - Tverlid | Established organization*

The informants showcase that startups incorporate a less defined approach due to the nature of the company, addressing innovation as a part of their DNA and ingrained in the mindset of employees. The established organizations portray a systematic approach by setting aside time to develop and research innovation strategies. They discuss how a strategy can support the organization by aligning with overall goals and making them tangible and visual for employees.

## 4.2 Innovation practice

In terms of this thesis, innovation practice concerns how organizations engage with innovation in their daily operations. It refers to the methods, techniques, and processes organizations use to consistently foster and manage innovation. The informants in this study shared their experiences and approaches to innovation, revealing both hands-on, customer-focused methods and wider, more flexible approaches. Chaves emphasized the importance of understanding customer needs and testing hypotheses in viability, desirability, and feasibility. Conversations with customers help them identify what customers value most, which guides their innovation process.

*I am structured and I like to go through hypotheses and test those hypotheses. And I tend to do it in three areas. So I try to look at viability. Can we make money? Desirability, someone wants to buy this. And feasibility, can we build it? We try to make very minimum viable products, the minimum thing, like a slide saying this is the idea. "What do you think? Does this make sense? Is this something you want?" And then go from there. We like to have customer interviews and feedback, just to understand their needs and what they're looking for, and really try to drill what exactly they need. So it's basically conversations. Conversations with people just to get an understanding of how and what they need and want, how much they maybe are willing to pay, get a sense of what they value more. - Chaves | Startup*

Sorensen highlighted the importance of continuous innovation, adaptation, market alignment for their organization, and strategic partnerships.

*We constantly have to adapt to reality, which involves making choices. And one choice we can make is to avoid these projects where we don't have a turbine and see that there is a big enough market for it when we focus on these other segments where it fits in. So this is continuous innovation, both technologically, in business, and in adapting solutions to the market. - Sorensen | Startup*

*For example, when we work with contracts valued around 30-40 million NOK, involving deliveries lasting for 30 years. Given our relatively short track record, it's often necessary to collaborate with partners to demonstrate stability. - Sorensen | Startup*

Weslien shared their use of a flexible, case-by-case model for innovation, separate from their standard 'Stage Gate' system which they use in the development phase.

*We use a 'Stage Gate' system in the development process. However, our innovation work has created a more flexible model centered around the incubator I mentioned. This approach doesn't have strict guidelines, allowing for case-by-case adaptation. The goal is to conduct experiments as early as possible, and we've implemented a decision-making structure for this purpose. It's pitched to a decision panel after maturing an idea or completing initial tests then decides whether to go for another round in the incubator, stop the project, or transition it to regular business operations. This creates a separate plan for innovation projects, distinct from day-to-day operations. - Weslien | Established organization*

Tverlid describes how he perceives a theoretically correct structure for innovation and how the organization now is structured to work on innovation.

*We were approaching what the innovation world considers a good way of doing things regarding key parameters, until we restructured two years ago. At that point, the organization shifted significantly and stopped centrally organizing internal innovation. We agreed to restructure and elevate innovation to the corporate management level (which was a good thing) to increase our efforts and speed up processes. But instead of discussing and logging ideas internally and connecting them to our internal structure, the organization only collected problems internally and used Crowdsourcing to solve them. - Tverlid | Established organization*

*We had extensive internal systems to log ideas and track their progress through an Enterprise Resource Planning (ERP) system designed for organizing ideas. Everyone had their user account and could monitor ideas, see their status, and check if funding had been granted and how far they had progressed. After the reorganization, all this was stopped. It was decided not to pursue internal technical ideas (business ideas continues to be centrally organized). Employees with ideas would either approach their managers or convince another leader. This can be challenging. Our focus shifted to gathering problems internally, and using the ecosystem around us to find the solutions. - Tverlid | Established organization*

There can be a smaller distinction between Tverlid's view on innovation and Equinor's perspective

*So, that's what we're doing now, and that was the change that happened. We're planning to reorganize again, and although it might be a bit early, there signs are pointing towards picking it up again and focusing more on internal innovation efforts. There used to be a smaller difference between my views on innovation and the company's, but there has been a significant gap in the last two years, without guarantee, that this might be changing as it seems we're moving towards more internal innovation now. - Tverlid | Established organization*

Tverlid highlights that as the oil and gas sector has a big profit margin, and therefore less focused on the details.

*When I transitioned from Hydro Aluminium to Hydro oil and gas, I moved from a margin-focused industry to a more profitable one with larger margins. Coming from an industry where we constantly worked on maintaining the right margins, I found myself in a place with abundant resources and less attention to detail. This inspired me to start proposing new ideas and working on innovative projects. - Tverlid | Established organization*

Also highlighting how established organizations can utilize Crowdsourcing platforms like NineSigma, to find solutions to their challenges.

*We have used Crowdsourcing for many years. Often, these platforms have a community where anyone can become a member and access the problems companies send in. One of several Crowdsourcing platforms we use is NineSigma, which has three million solvers globally. Members with relevant interest can review problems, identify those within their expertise/interest and propose solutions. - Tverlid | Established organization*

Another aspect Tverlid mentions is to engage with startup environments, such as the Impact Awards in Stavanger, to find mutually beneficial solutions for their problems.

*Another method we use to solve our problems is to reach out to startup environments. We are for example participating in the Impact Awards in Stavanger next month. This is an annual event for the Stavanger startup community. We will share some of our challenges there, hoping that someone may pick them up. For instance, if a startup believes their product could help Equinor with a specific problem, they might adapt their offering to suit our needs, potentially creating a mutually beneficial match. - Tverlid | Established organization*

Addressing challenges of new technology requires a culture of innovation and problem-solving, as well as people who can think differently and assess new ideas.

*One of the challenges we're addressing, for example, is underwater communication between drones. We'll have many more drones above and below water, and there are similar communication challenges in both cases. However, underwater communication has much shorter ranges – 20-30 meters, compared to 20-30 kilometers above water. So, we need to solve the problem of longer-range underwater communication. To even consider and address this issue, you need a culture of innovation and problem-solving. We can receive various ideas and solutions by engaging many people and startups. But without an innovation culture, evaluating and implementing these ideas effectively is challenging. There's a gap right now, and we might return to addressing it. We need people who can think differently and assess new ideas. - Tverlid | Established organization*

*What I've seen over the years is that when you present ideas to people who are closely involved in operations, they tend to systematically choose the most developed solutions, not necessarily the best ones. They often focus on immediate usability, saying, 'This idea has potential to change everything, making it simpler and better; but that one is almost ready, and we can buy it tomorrow.' So they go for the latter option. - Tverlid | Established organization*

Open Innovation and understanding the problem are crucial, Tverlid explains how to follow a qualification process to find the right solutions for submitted problems.

*Open Innovation is essential. We provide support for those who submit problems, as it can be quite challenging. People often think that developing the idea is the hardest part of innovation, but it's actually the least difficult. Truly understanding a problem is more challenging, while the toughest aspect is implementation – even with a good solution, it can be complicated. That is where many issues arise. We are not overly concerned with how people generate ideas or qualify them; we just want a variety of good ideas. We then choose the ones we believe in and involve those who need them, as they brought up the problem. Once a problem is submitted, we follow a qualification process to find the right solution. - Tverlid | Established organization*

*We have been involved in Crowdsourcing since around 2016, and when someone submits a problem, we work together on the problem formulation. For evaluation, we gather people who want answers (problem submitter) and subject matter experts, mostly from within the company. We then have a process that involves rating systems and predefined evaluation criteria. Everyone assigns scores based on these criteria, and we discuss any discrepancies. Ultimately, the ideas with the best scores are selected. This evaluation process includes a mix of people from innovation, experts in the field, and users or those who will pay for the solution. - Tverlid | Established organization*

Tverlid emphasizes the importance of systematic approaches to innovation work and that standards for innovation would be beneficial.

*ISO 9000 is a standard for various aspects like quality and is currently developing a section on innovation, which means there will come a standard for how to develop innovation. And after that comes qualification, which is another standard. These standards are interconnected; first, an idea is developed, then it undergoes a qualification process, and finally emerges as a quality product. When purchasing an ISO 9000 certified product, you can trust it has followed a certain quality system. Equinor does not strictly adhere to an innovation standard like this yet, but we have our ways of ensuring quality. - Tverlid | Established organization*

*I strongly believe in systematic approaches to innovation work. It has to be systematic. This is what I work for. Whether the current standard is right or not, I don't know, but having a system in place is important. It's not a linear process but rather a cycle of trial, testing, and failure, similar to BML (Build, Measure, Learn), allowing iteration. Understanding the problem, generating ideas, and verifying their effectiveness are common steps in the process. Innovation is crucial for many and shouldn't rely on luck or perfect conditions. It's a job that requires hard work and concrete actions, and with a systematic approach, it will eventually be successful. - Tverlid | Established organization*

The results showcase that the informants do certain aspects of practice differently. The informants from the startup environment highlight customer needs and market fit as the main focus of their practices, noting that the practice is not set in stone, but dependent on the situation. On the other hand the informants working in established organizations highlight flexible, yet systematic approaches. According to the informants, innovation generally requires an awareness of customer needs, a culture of innovation and problem-solving, Open Innovation, and systematic methods to ensure quality and success.

### 4.3 Innovation culture

Tverlid highlights that navigating the challenges of radical innovation in large companies requires management involvement, with CEOs playing a decisive role in driving and facilitating innovative efforts.

*Large companies can struggle with radical innovation because they are busy with many important tasks. However, we know that leaders like Steve Jobs, Elon Musk, Jeff Bezos etc, were very focused on innovation. It's crucial for management to be closely involved and interested in innovation; I would say it is almost decisive. The CEO is in charge of the company's direction. He/she must request these things and ensure good communication both ways to make it work. - Tverlid | Established organization*

There is highlighted how an established organization can adopt external technology

*Adopting external technology can be done in various ways, such as acquiring and keeping a company separate, allowing them to create new things. For example, if Equinor wanted to get into nuclear power, Equinor could simply buy a nuclear power company, and suddenly Equinor would be in that business, completely separate. However, Usually you would want to integrate the company that you acquire. Tverlid | Established organization*

Tverlid emphasizes the extensive qualification procedures Equinor follows when adopting existing or radical technologies, underscoring the importance of cultivating a culture of innovation for thorough evaluation and testing.

*Even if a technology is mature and used by others, we still have extensive qualification procedures in place. This is for technology that other companies are already using. Imagine the work we put down when we are receiving revolutionary technology developed externally. Then, of course, it needs to be checked and tested thoroughly. To do this, you need a culture of innovation. - Tverlid | Established organization*

Tverlid's anecdote about a missed opportunity with Spotify illustrates the pitfalls of not having an internal innovation system, cautioning against prioritizing incremental improvements over groundbreaking ideas.

*Without an internal innovation system, we risk overlooking groundbreaking ideas in favor of incremental improvements. People in operations tend to focus on their immediate tasks and might dismiss transformative ideas in favor of solutions that address short-term needs. It's essential to have a system in place that recognizes and supports innovative ideas, even if they challenge the status quo. I am (or was) part of a Norwegian innovation cluster called Open Innovation Lab of Norway. A representative in that cluster is well-versed in digital technology and has built up expertise in digital matters, including building several successful startups. Things have been going quite well for the person, and is now sharing innovation knowledge with the world. A group approached the person years ago suggesting that CDs were becoming obsolete and proposed a music-sharing service that stores music in the cloud and streams it to your phone. Despite being an expert in innovation, the person dismissed the idea. The group went to Sweden and founded Spotify. Often, people who are not trained in innovation focus on improving existing products rather than exploring groundbreaking ideas, like streaming services once was. - Tverlid | Established organization*

Tverlid shares Equinor's successful experience with their iceberg detection project, showcasing the company's effective collaboration with external teams and their organized approach to managing innovation ownership and rights.

*A great example is our iceberg detection project. We had a challenge to automate the process of identifying whether satellite images showed icebergs or boats. We engaged 3,300 teams on Kaggle and received 44,000 submissions. The top three solutions were selected, and the best solution was implemented within a year. It was 8% more accurate than humans and fully automated. Norwegian law states that the person who comes up with the idea owns it in terms of innovation and ownership. We either buy the service or pay the inventors to provide us with the code. We, as a company, are quite organized when it comes to managing ownership and rights. - Tverlid | Established organization*

Further on Tverlid explained that instead of going after patents outside of the core business, it would be better to outsource it to another who has the patent closer to their core operations

*We rarely buy patents. The downside of owning it is that we would have to maintain it ourselves, which we are not interested in doing. We are excellent at producing energy, not managing data systems. We usually prefer that others develop and maintain the solutions we need. We might buy core technologies that we are good at as a company, but it is doubtful that we would buy something very outside our core. We want outsiders when we only buy the service and not owning it, we want them to create a user-friendly interface for us and fix it if something goes wrong. When we take patents, we often do so to encourage others to work on them. We want development and offer a head start (they are allowed to work on the patent without interruption from others etc) for those willing to build solutions for us. We provide protection and financial incentives, but are generally not interested in owning things, except for core aspects of our business. - Tverlid | Established organization*

A systematic approach to incremental innovation in an established organization

*For incremental innovation, we work closely with our users and the operational units. They report their needs, and these are organized and handed over to the research department, which is divided into various specialized groups. Problems are distributed to the experts, who then work on projects to address them. We have a systematic qualification process and a comprehensive system for tracking technology development. Other companies admire this advanced system. It allows us to follow the*

*progress of ideas and projects (here there is much information about e.g. IP rights, technology stage etc.). Our maturity gives us an advantage over many other businesses when working with incremental innovation. We have systems for this, we have the financial backing and close proximity to those who need the innovation within the company. Proximity to experts in many fields. We can go to their offices and ask them questions, and they can come to us and ask questions as well. Startups do not have this ability. However, for more radical innovation, our size creates challenges. Large companies tend to be risk-averse. - Tverlid | Established organization*

Tverlid explains how Technology Readiness Level (TRL) is used when working with innovation in the company:

*The TRL is tied to the maturity of the technology. To clarify, advancing a technology's maturity requires navigating through various Stage Gates, leading to its progressive development. TRL levels range from 1, which is just an idea, to TRL 7, which indicates a technology that has been implemented and tested multiple times internally, making it reliable (not 100% sure of the number of levels, but it is used to make a point). As you progress through the levels, you move from rough calculations and sketches to more extensive modeling, simulation, lab testing, and finally full-scale testing under real-world conditions. - Tverlid | Established organization*

*When we discuss TRL levels internally, especially in the development department, everyone knows what it means. For instance, if someone says they have a new technology at TRL level 4, everyone understands the progress made. It's important to measure innovation development and not just celebrate when an idea is generated or implemented, as there can be a 10-year gap between those milestones. Monitoring the progress through TRL levels is essential, especially for radical innovations that may take longer to develop. - Tverlid | Established organization*

Management has a significant role in fostering and accelerating innovation inside established firms. When implementing new or radical technologies, the significance of adopting technology from outside sources and going through qualification processes is highlighted. Additionally, the necessity of fostering an innovation culture for in-depth examination and testing, and being aware of how incremental innovations sometimes can hinder radical innovation. In summary, innovation in established organizations requires a tailored approach with a significant focus on establishing a culture of innovation from the management's perspective.

## 4.4 Measuring Innovation

Key Performance Indicators (KPIs) can be used as tools for evaluating the effectiveness and impact of innovation work within an organization. By setting relevant metrics, KPIs enable businesses to monitor progress, identify areas for improvement, and align innovation efforts with strategic objectives. However, measuring innovation can be a difficult task to do, it is rare that an idea generates revenue in a classical manner. Consequently, this section presented a wide array of opinions, giving the overall impression that accurately measuring the results of innovation is a challenging task. Weslien discusses their two-part approach to innovation, highlighting the challenges of measuring results and the importance of engagement and visibility within the organization

*It's a bit of a two-part approach. We measure either effort or results. However, we haven't been very active in measuring results, as it can be challenging. It often takes time for the results to pay off in terms of products and revenue. So, we haven't established any KPIs for that. However, we have KPIs for both engagement initiatives and visibility. One thing we measure is activity and communication with all employees. A strategy isn't helpful if it's just a document that nobody knows about. So, we have some*

*KPIs and pressure to be proactive. We also have KPIs for new ideas, as we've set up an internal incubator framework, where we measure the number of ideas coming in and how many initiatives we run through the incubator. - Weslien | Established organization*

Chaves shares their straightforward approach to innovation, emphasizing flexibility and gauging interest as their primary KPI

*No, we don't have really specific KPIs. I think the only KPI that we have is whether people like it or not. At this stage, we need to be as light and flexible as possible. So it's just very straightforward. "Is there interest here?" ->Yes -> Let's build something very simple. Let's see if there is interest, if there is traction. And then if there is, we build a little bit more. And give the feedback and that's it. There's nothing more to it at this stage, I would say. - Chaves | Startup*

Sorensen explains how they measure innovation in a less academic way, focusing on the effectiveness of product mix and composition to determine if adjustments are necessary

*Yes, it is measured. I don't think we approach it as academically or precisely as maybe you describe it, but we do measure it continuously in the sense that if the combination of products we have, if we take the other part that goes into product mix and composition, if it doesn't work, we'll look at, okay, is there another combination that comes in? Are there other components, other solutions that need to be brought in? - Sorensen | Startup*

Tverlid from Equinor reflects on the difficulties of measuring innovation using KPIs, mentioning their experience with tracking the number of ideas as an ultimately unsuitable metric, as well as differing on radical and incremental innovation.

*In the field of innovation, we have used KPIs, However, measuring innovation is quite challenging. We have attempted to track the number of incoming ideas; however, this proved to be an ineffective metric. Although we reached our target, it was clear that this was not a suitable measure. - Tverlid | Established organization*

*One approach we tried to measure radical innovation created internally, without entirely succeeding, was to assess the financial returns generated by our ideas. We tracked the ideas and evaluated the value they provided. To measure radical innovation, we had a program that logged all ideas and their progress. In theory, you could track the number of ideas entering the system, as well as those advancing to the first, second, and third levels and eventually being realized. Simply counting the ideas entering and exiting the system is insufficient; you need to observe the flow and see what value the company gains from them. It is also important that you also need to be willing to stop projects, learn from them, and understand why they did not work. Innovation requires patience, lots of testing, and the ability to stop projects. We use the Technology Readiness Level (TRL) scale to assess the maturity of ideas, which helps us track and measure our progress. - Tverlid | Established organization*

*Moreover, the company has thoroughly evaluated the output of our research department, which primarily functions as a driving force for incremental innovation. We recognize the significant value it generates. However, measuring incremental innovation is easier than measuring radical innovation. - Tverlid | Established organization*

The informants share various ideas about how to measure innovation. From the difficulties in assessing results and emphasizes the value of engagement and visibility within the company to measuring flexibility and interest assessment. To determine whether modifications are required, Sorensen evaluates the effectiveness of the product mix and composition. Tverlid discusses the challenges of gauging creativity using KPIs and notes that counting ideas is ultimately an inappropriate metric. They also emphasize how radical and incremental innovation are measured differently. In summary the opinions of the informants imply that measuring innovation is difficult and that a customized strategy that takes the particular

circumstances and objectives of the company into account is crucial.

## 4.5 Advantages of a startup

How can some startups take a stand against well-established organizations and compete for the same market, with less resources and less experience? Sorensen from Norhybrid highlights the advantages of a flat structure and small teams in fostering an environment conducive to innovation, while emphasizing the importance of carving out dedicated time for innovative work

*Flat structure is a huge advantage. A small team is a huge advantage. The bigger the team, the more nonsense there is, and it becomes distracting. And, as I see it, it's about organizing oneself and having time for innovation amid all the things one has to do on a daily basis. Whether it's sales or technical work, it's about finding a process that allows us to turn off all other stresses and the email that I should have responded to three weeks ago. I'm turning that off now for an hour because we're going to focus on this. So it's definitely critical in creating an environment that is open to innovation and is effective with innovation. - Sorensen | Startup*

Chaves points out their strength in customer focus and adaptability, but also acknowledges the challenge of over-customization and the importance of maintaining a market-ready product

*I think maybe one of our strengths, it's our customer focus. Really hear what the customer needs and then from there, figuring out how and what we can provide. I think that's the strength. I think we're very flexible and I think we can also adapt quickly. I think that challenge is that you can customize too much, right? And do a little bit of too many things. And I think it's important that we focus on something so that we can actually have a product that it's eventually more standard for the market. - Chaves | Startup*

Weslien contrasts the experience of a startup with their own situation, discussing the complexity of managing a diverse product portfolio and the challenges of working on multiple projects simultaneously

*Yes, and perhaps that's the strength of a startup, where you might have one product that everyone works towards and gets resolved. However, in our case, we have a portfolio of 200 to 1000 products, with some people working on five projects simultaneously. - Weslien | Established organization*

The citations imply that startups have a variety of advantages compared to an established organization. Emphasizing the advantages of a flat organizational structure, short distance to decision makers, adaptability and a focus on the consumer. Weslien draws comparisons between their experience and startups, highlighting the difficulties involved in managing a broad range of products compared to one core product at a startup. In conclusion, the results could indicate that the agility in focus, adaptability and fast decision making are major advantages of a startup compared to an established organization.

## 4.6 Challenges of a startup



There will always be challenges when innovating, it does not matter the organization's size. However, some challenges might occur in startups that do not necessarily occur in established organizations. Sorensen from Norhybrid discusses the challenges startups face in allocating their limited resources to accurately define problems and identify the best solutions, compared to larger companies with more financial flexibility

*The challenges are really about spending enough time both to assess the situation and problems and then finding the best solution to the problem. No company in this world has unlimited resources. But startups are more strapped than others and have to be smarter, cheaper, and do things more cleverly. So it's a bit of a squeeze in a startup compared to large companies where it's very easy to just throw money at things. If you don't have the right problem, you can spend a lot of money very quickly. The challenge is more on that, defining the problem correctly, and finding the best solution to that problem. -*

**Sorensen | Startup**

Chaves emphasizes the difficulty of ensuring that a product or service is desirable, profitable, and adaptable to the external environment, while noting that achieving these three elements simultaneously is particularly challenging in the innovation process:

*I think you need to ensure that someone will be willing to buy what you're producing as a service or product. And then you also need to ensure that you can make money from that. And I think the combination of those three things, that those three things happen, are possible at the same time. It's not easy. Innovation, it's difficult. So I would say that that's the difficult part, having those three elements happening simultaneously then you have a fourth element that it's making sure that that is whatever that is that you make and someone wants to buy and that you can make money from, that it's still robust to the external environment, to the macro environment. -*

**Chaves | Startup**

According to Chaves and Sorensen, there are difficulties in the innovation process that apply to all firms, regardless of size or sector. In particular the difficulty of allocating limited resources for startups as opposed to larger businesses with more financial power and ensuring that a product or service is both profitable and adaptable to the outside world, all of which are tough to achieve simultaneously in the innovation process. In summary, it showcases that the innovation process needs careful approach, resource management, and trade-offs between various product/service development aspects in terms of prioritizing.

## 4.7 Advantages of an established organization

Some organizations seem to always find a way to innovate and stay ahead of the competition. Weslien highlights their company's broad expertise and diverse skill sets as strengths, as well as the benefits of having an innovation hub that fosters collaboration among professionals from various backgrounds

*It's likely due to our broad range of expertise, both in terms of product portfolio and diverse skill sets. We work in a way where we have an innovation hub, or a central place where you can draw on people from various backgrounds. This leads to a relatively unique team that tackles all sorts of new tasks. It's a bit more challenging to achieve in smaller companies. Financially, it's also a strength, especially when the company is doing well. If you have a solid business case, there's definitely an opportunity to obtain funding for investment and expansion. -*

**Weslien | Established organization**

Additionally, Weslien explains that in a large company like Kongsberg Maritime, the wealth of internal expertise available can lead to positive outcomes and provide valuable insights across various subject areas

*In a company like ours, there's a wealth of internal expertise that can be brought together, resulting in many positive outcomes. It's a great attribute that probably not many new companies possess. If you need answers to questions, regardless of the subject area, there's likely a department working on it. Once you have an overview, you can always find someone who is an expert in that field. - Weslien | Established organization*

Tverlid from Equinor asserts that while smaller companies may excel in radical innovation, larger companies often have an advantage when it comes to incremental innovation due to their extensive research departments, expertise, funding, and resources:

*For smaller companies, the advantage in radical innovation is clear. However, large companies might have an edge when it comes to incremental innovation. They have extensive research departments, vast expertise, significant funding, external help, and often labs and testing areas. In this sense, large companies are well-equipped to drive incremental innovations. - Tverlid | Established organization*

Tverlid further emphasizes Equinor's strength in incremental innovation, attributing their success to the company's size, maturity, and expertise, as well as the systematic approach, procedures, and significant research budgets in place

*We are extremely good at incremental innovation. I would say we are ranking among the best on a global scale. It is definitely connected to our company size, maturity, and expertise. Equinor has been one of Norway's most popular employers for years, which means our company is filled with highly skilled people, many in the research department. Although we might be a bit conservative and not as good at making radical changes, we are great at incremental development. Our maturity, systematic approach, procedures, and large research budgets are why we are so good at this. For example, 3.3 billion was spent on the research department a few years ago. This contributes to our success in this area. - Tverlid | Established organization*

According to the informant's viewpoint, organizational size and knowledge are key factors in innovation. With size and resources comes advantages like an innovation hub and a diversified skill set for research and development. Exemplifying this by highlighting Equinor's strengths in incremental innovation. In summary the advantages of an established organization compared to a startup boils down to resources, both in terms of money and expertise.

## 4.8 Challenges of an established organization

Despite having more resources, both in human and economic ways, challenges with driving innovation occur in established organizations. Weslien highlights the challenge of engaging employees in innovation while balancing their daily tasks and long-term goals.

*The main challenge might be engaging enough people and finding the right balance between their daily tasks, where they need to meet deadlines and address customer challenges, and innovation work, which is more long-term. Achieving that balance is perhaps the primary challenge. - Weslien | Established organization*

Tverlid from Equinor discusses how large companies tend to focus on improving existing systems, which can be a barrier to radical innovation.

*In large companies, there is a significant structure, and the natural reflex is to improve what already exists, focusing on cost, efficiency, and quality. This approach brings in steady revenue and is less controversial, so gaining acceptance and delegating within the organization is easier. Radical innovation, however, is about what will generate income in 10 - 20 years and is much harder to get acceptance for. The differences between large and small companies make the challenges and opportunities for radical and incremental innovation quite distinct. - Tverlid | Established organization*

Tverlid also points out that the maturity of an organization can negatively impact innovation by making it difficult to take risks and embrace new ideas.

*The maturity of a company has both positive and negative effects on innovation. On one hand, being mature makes us more systematic and better equipped in our innovation efforts. On the other hand, the size and cautious nature of the company can hinder taking bold risks and trying new things, as failures can lead to public scrutiny and financial loss. This is even a bigger challenge as The Norwegian state is the main shareholder in Equinor, owning a 67 percent stake in the company. - Tverlid | Established organization*

Tverlid emphasizes the benefits of a shorter decision-making process in startups, which allows for quicker changes and easier implementation of radical innovations.

*In the context of radical innovation, only the CEO has the mandate to change the direction of a company. Having the support of the CTO is advantageous, but ultimately, the CEO makes the decision. This process can be complicated in large companies and involve many structural and organizational changes. In startups, however, it's much simpler, as decision-makers work closely together and can make quick changes. The challenges and approaches to radical and incremental innovation are quite different depending on the size and structure of the company. - Tverlid | Established organization*

Lastly, Tverlid shares his experience in fostering radical innovation and how his efforts have led to the development of a more formal structure for innovation within Equinor.

*When I started in the company I came up with ideas for change, they didn't move forward unless someone asked for help. If I approached someone with an idea, it was often dismissed. I discussed this issue with my leaders and eventually, our research director, who is now the CEO of Aker BP. He was positive to develop a more formal structure for innovation, and in 2011, I started a radical innovation group. We worked systematically on larger-scale innovation, focusing on both radical and incremental innovation. Over time, I learned what was needed to ensure that our ideas didn't end up solely on the incremental track. The whole innovation department was initially organized under the research department but had responsibilities for the whole organization. It had a corporate mandate. Over time, our innovation efforts moved up the leadership levels, and now it is at the highest level with a director overseeing it. This is necessary as innovation needs to be integrated into the company's core leadership. - Tverlid | Established organization*

The results showcase that even when established businesses have access to more resources, they still struggle to foster innovation. The struggle is related to encouraging innovation among employees while balancing their daily obligations and long-term objectives. Additionally, larger businesses frequently concentrate on enhancing current systems, which can be a roadblock to radical innovation. *In contrast it is underlined that the advantages of startups having a quicker decision-making process since it enables more rapid modifications and simpler execution of radical innovations.* In summary, this suggests that innovation in established organizations requires a balance between improving existing systems and embracing new ideas and approaches, as well as finding a balance between daily obligations and time spent on innovating.

## 4.9 Learning from one another

This thesis also explores potential synergies between startups and established organizations, highlighting areas where each organization type can benefit from the other's strengths and abilities. Below are some insights from two of the informants. Chaves believes that startups can learn more about structure and process from larger companies, while larger companies can benefit from the speed and adaptability of startups.

*I think we can learn more about structure and process. And I think bigger companies can learn about speed and adaptability. The way that startups can make decisions and just adapt to a market and a need and then see an opportunity and just act on it. But faster in smaller companies, of course. And the focus that a big company can give you to do something and then try to be successful in that area, I think that's something that it's very positive and that startups could learn from. A little bit of structure. - Chaves | Startup*

Weslien expresses his interest in collaborating with startups to achieve mutual benefits, including faster innovation and access to resources for scaling.

*(...) I believe that. It is also something that I would like to address when we revise the strategy eventually. I think that it is a direction that we should explore more, working with startups. There are different ways, so either working together on innovation projects, that's one way. Then it might be that the startup has the idea, or they have started on a concept. And they can use us as a large company to scale quickly and with some safety. And for our part, we might reach our goals faster if we rely on a startup, instead of using all the slightly heavier processes that we have internally. I believe there are valuable lessons to be gained from both the process of learning from each other and engaging in collaboration. - Weslien | Established organization*

The informants indicate that working together and sharing knowledge can be advantageous for both startups and established corporations. Arguing that larger firms can benefit from the speed and adaptability of startups while startups can learn more about structure and processes from them. Multiple parties state their interest in working together in a belief that it would benefit both parties in terms of quicker innovation and easier access to funding for scaling up. In summary, it indicates that working together to utilize each other's strengths is beneficial and desired.

## Chapter 5. Discussion

The results from the case study have contributed with insights from four experienced persons within the field of innovation. Their perspectives support the assumption that innovation is complex. There is no correct answer on how an organization (whether it is a startup or an established organization) should work with innovation. There is a big difference between what is theoretically correct, and what works in real life. To abate this gap is part of the aim of the thesis, and to do this, it was necessary to map out how the organizations worked strategically and in practice with innovation. In this chapter, the thesis will discuss findings from the interviews from innovation practitioners, with literature on the subject. This chapter is divided in three. The first section, “Aligning on Innovation” will discuss findings and existing literature relevant to innovation. While under “Synergy”, the thesis will discuss findings and existing literature regarding how startups and established organizations could gain from collaborating. Lastly, “Standardization for Innovation" discusses a standard for innovation. Overall, the discussion address the following research questions:

1. What are the strategies for established organizations and startups in Norway to drive growth through innovation in the face of increased competition and rapidly changing market conditions?
2. What are the best practices for established organizations and startups in Norway to drive growth through innovation in the face of increased competition and rapidly changing market conditions? If so, why and how?
3. Do strategies differ between established organizations and startups for driving growth through innovation in Norway? If so, why and how?
4. Do best practices differ between established organizations and startups for driving growth through innovation in Norway?
5. What established organizations can learn from approaches employed by startups and vice versa?

### 5.1 Aligning on innovation

Strategically, the case study revealed a divergence in approaches towards innovation between startups and established organizations. The startup informants, Chaves and Sorensen, exemplified an organic, informal approach to innovation, viewing it as integrated to their organizational DNA. While the informants from established organizations exhibited a more systematic and planned approach. This distinction mirrors existing literature, demonstrating that startups often thrive with less defined organizational structures and roles, focusing on disruptive innovation through new products or services (Freeman & Engel, 2007; Graham, 2012). In contrast, established organizations, with their more rigid structures and defined roles (Freeman & Engel, 2007; Sapienza et al., 2006), tend to concentrate on incremental innovation, leveraging their secure market positions and resources to make modest changes to existing products (Freeman & Engel, 2007). The results indicate that in this situation, an

organized innovation strategy can be beneficial to ensure the organization maintains its relevance and competitiveness in a fast-moving industry. A crucial factor influencing these different innovation strategies appears to be the organization's hierarchy. Tverlid highlights the lengthy chain of command in established organizations as a challenge to driving innovation, while Chaves views the CEO's proximity in startups as advantageous. This suggests that flat structures typically for startups, foster quick decision-making, whereas the more hierarchical structures in established organizations can decelerate this process. For established organizations, maintaining communication and strategic coherence across many layers might need a methodical approach to innovation strategy and practices.

Startups in the case study are characterized by less formalized innovation strategies, and exhibit a significant deviation from the operation of established organizations. Startups function in a dynamic, rapidly changing environment with a higher level of risk and uncertainty (Freeman & Engel, 2007; Sapienza et al., 2006; Viki et al., 2017). Several factors contribute to this difference in strategies, including the size of the organization, the proximity between employees and decision-makers, and the organization's maturity. As Chaves underscores, startups "need to have innovation to survive", underlining the vital role of innovation. The necessity to innovate might also explain why they have less structure and formality for their innovation work. A startup often navigates uncharted waters (Sapienza et al., 2006), with many of its tasks being performed for the first time. A significant portion of their daily activities hence involves innovation. Imposing formal structures on innovation could potentially hold back this creative mindset, leaving strategic and resource planning irrelevant at this stage. This is different from literature, where innovation strategy is highlighted as a must (Pisano, 2015) The typically smaller teams in startups foster effective communication and close collaboration between employees and the CEO. This allows for the ability to pivot fast and promotes a culture of innovation. Consequently, innovation becomes inherently ingrained in a startup's business model, reducing the need for an innovation strategy at this time. While some startups might benefit from a more structured innovation plan, it might be their less rigid organizational structure and processes that contribute to their flexibility and adaptability. These attributes equip startups to thrive amidst the inherent risk and uncertainty of their operating environment.

The transformation from a youthful startup to a mature, established organization often necessitates the development of structures and formalities, perceived by some as killers of innovation. Established organizations are typically characterized by defined roles, responsibilities, and established procedures, aspects which lend them stability and order but may potentially reduce some of their innovativeness (Freeman & Engel, 2007; Sapienza et al., 2006; Viki et al., 2017). As such, the challenge lies in navigating the growth of a startup without undermining its innovative capacity. This raises the question: how can an organization maintain, if not enhance its ability to innovate as it grows? Tverlid offers insight into this through his analysis of Equinor, a company he referred to as "ranking among the best on a global scale" in terms of incremental innovation. He attributes this success to maturity, a systematic approach, defined procedures, and substantial research budgets, factors which align with the benefits of established organizations outlined in current literature (Freeman & Engel, 2007; Sapienza et al., 2006; Viki et al., 2017). However, Tverlid acknowledges that Equinor faces challenges when it comes to radical innovation due to its size. This points to the dilemma of organizational ambidexterity, an ideal that established organizations often struggle to achieve (Andriopoulos & Lewis, 2009; Chang & Hughes, 2012; O'Reilly et al., 2013). Hence, the delicate balance between growth and innovation remains a crucial consideration for startups aspiring to become established organizations.

Despite variations in size, maturity, and structure, innovation was universally regarded as crucial among all informants. A common theme among all informants was the importance of understanding the problem. Although each organization facilitated innovation differently, possibly due to how they value innovation differently, prior experiences, or distinct needs. Tverlid, in particular, emphasized that innovation must be systematic and structured, involving a continuous loop of trial, testing, and failure that allows for iteration. This aligns with innovation best practices such as Build-Measure-Learn, Lean Thinking and Stage Gate (Cooper, 2014; Ries, 2011; Thangarajoo & Smith, 2015). Tverlid further underlined the significance of an internal innovation ecosystem, a culture where experimentation is encouraged, although he did not explicitly use these terms. His views also pointed to the importance of established procedures for fostering innovation, aligning with prevailing innovation theory (Freeman & Engel, 2007; Morris, 2013; Viki et al., 2017). Additionally, Weslien (also from the established organization environment) described engaging in communities of practice, such as incubator programs and shared office spaces with other startups, as strategies to cultivate innovation.

The case study data reveals divergent perspectives on measuring innovation among the informants. Weslien and Tverlid concur on utilizing diverse Key Performance Indicators (KPIs) such as engagement, visibility, and quantity of ideas. However, the value of these can be discussed. Furthermore, Tverlid points out an unsuccessful endeavor to measure radical innovation internally, highlighting the challenges with measuring these innovations as they often take years to develop. This is also highlighted as difficult in literature (Nandal et al., 2020). Chaves and Sorensen do not reflect such KPIs. However, they concentrate on elements like interest, traction, and continuous evaluation. Sorensen notably expressed that their approach, while possibly deviating from methodologies recommended in innovation literature, works for them. This attitude towards measuring innovation, observed among the startup representatives, deviates to some degree from the emphasis found in innovation literature (Chan et al., 2008; Nandal et al., 2020). Consequently, this might suggest the need for either an update to the literature on innovation measurement or a potential necessity for more stringent measurement practices within startups.

The case study underscores the complexity of measuring innovation and suggests that approaches vary depending on a business's stage. For startups, an informal, agile, and flexible approach aligns best with their intrinsic drive to disrupt and adapt quickly. In contrast, established organizations, due to their size, complexity, and the need to balance incremental and radical innovation, may necessitate a more structured and methodical approach (Nandal et al., 2020). This insight reflects that there is currently not a one-size-fits-all strategy for innovation, and initiatives should adapt to the organization's stage, size, and maturity. As startups evolve into established organizations, maintaining their original innovative drive amidst the increasing structure becomes a significant challenge (Freeman & Engel, 2007). This complexity suggests that innovation initiatives require continual assessment and adjustment to ensure alignment with the organization's maturity level. Despite the employed approach, fostering an innovation-friendly culture that encourages risk-taking and a deep understanding of the problem to be solved emerges as a common imperative. However, finding relevant KPIs that accurately reflect the impact of innovation initiatives, particularly in measuring elusive and long-term aspects such as radical innovation, presents a significant challenge, indicating a need for further research and development in this area.

## 5.2 Synergy

The empirical data suggest a positive attitude towards collaboration among the informants. The informants from the established organizations already employ certain systems, such as incubator programs and Crowdsourcing, as part of their Open Innovation strategy. While the startups lacked a formalized approach, they displayed a keen interest in learning from the established organizations and a willingness to engage in collaborations. This aligns with the established theory on Corp-Up, Open innovation, and Crowdsourcing (Chesbrough & Appleyard, 2007; Grönlund et al., 2010; Schättgen et al., 2019). The potential benefits of synergy between startups and established organizations are numerous. Startups can access resources, gain market credibility, and scale their products, while established organizations can increase their innovation culture, access talent, and expand their market reach (Freeman & Engel, 2007). The case study data supports this theory. For instance, Sorensen illustrates how they leverage partnerships to gain credibility in high-stake deals. Similarly, Weslien expressed a desire to collaborate with startups to tap into their innovation capabilities, speed, and flexibility, reciprocating with resources, credibility, and expertise. Tverlid highlighted crowdsourcing and the startup environment to solve problems for Equinor, reflecting an innovative approach that harnesses external expertise and entrepreneurial thinking.

This thesis suggests a novel perspective, proposing that fundraising doesn't have to be merely transactional. As noted in the introduction, there has been a decrease in startup applications and fundraising has become increasingly difficult, according to Innovation Norway (Haugli, 2023). Encouraging collaboration between established organizations and scalable startups could yield greater benefits for both parties. They can draw on each other's strengths, reduce the risks typically associated with conventional investing, and benefit from a blend of incremental and radical innovation. This aligns with the research conducted by Alexander and Van Knippenberg (2014, pp. 423-435) and Viki et al. (2017) on ambidextrous. Here, startups contribute to the "search" component and established organizations "execute". Moreover, the findings support previous research on Corp-Up (Edwards-Schachter, 2018; Ortt & Van der Duin, 2008). This approach demands a careful analysis of each organization's strengths and weaknesses to generate the best possible synergy. A repeating pattern in the results is that everything varies greatly based on the situation. In other words, it is fair to assume that the thesis cannot set a straightforward guide to collaboration, but rather provide context and suggestions on how to proceed.

## 5.3 Standardization for innovation work

While the case study revealed how the informants from the startups and the established organizations worked differently with innovation on a strategic level, it revealed similarities and differences in how the organizations engage with innovation in their day-to-day work. This diverse range of practices used, aligns with established theories, including Ries' (2011) endorsement of Lean Thinking as an essential tool for entrepreneurs of all company sizes. Other innovation best practices such as Build-Measure-Learn, Open Innovation, Crowdsourcing, and Stage Gate were also identified by the informants as significant, to varying extents. These practices are frequently mentioned in innovation literature, with empirical data supporting their practicality for achieving innovation (Chesbrough & Appleyard, 2007; Cooper, 2014; Ries, 2011). Tverlid and Weslien, from the established



organizations, highlighted the importance of Open Innovation, underscoring the role of Crowdsourcing and problem-solving through startup environments and incubator programs. Even though Open Innovation is not explicitly identified as a standard practice in startups, the thesis argues that they do leverage this best practice. Whether consciously or unconsciously. Evidence for this includes Sorensen's collaboration with established organizations and Chaves' entry into her company following her involvement in an accelerator program with Surplusmap participating. This demonstrates how startups can gain talent and credibility through Open Innovation.

Best practices are neither fixed nor universal, but rather dynamic, varying between firms, over time, and in response to market changes. Therefore, there is no definitive path to high efficiency; multiple strategies may lead to similar outcomes (Edwards-Schachter, 2018; Ortt & Van der Duin, 2008). The case study supports this view, showing diverse practices employed by informants to foster innovation. Participants from both startup and established organization environments indicate that a variety of practices are being experimented with. However, a potential pitfall emerges when innovation is insufficiently structured and formalized. Tverlid notes this risk when discussing organization restructurings. Such drastic changes might be avoided if innovation literature were further developed and updated. Clearer strategies and practices could enable organizations to better understand the necessary structures to achieve desired results. Kiatpanont (2020) proposes ISO 5600 as a standard guideline for managing innovation in established organizations. Yet, none of the informants mentioned using this standard. This is suggesting that it may need further work to adapt it to evolving market conditions and changes.

The relationship between innovation practices and strategies in startups and established businesses reveals an interesting paradox. On the one hand, innovation is a fluid, adaptable process that excels in various environments and methods, from Lean Thinking to Open Innovation. It complements both the free-spirited nature of startups and the regimented environment of established enterprises, giving everyone a unique route to fulfilling their goals. On the other hand, though, it highlights the conflicting difficulty of systematizing creativity. Structure and systematic methods can offer direction and clarity, but they also risk limiting the impulsiveness and flexibility that frequently fuels innovation. This two-sided view indicates a need for awareness and an understanding of innovation to add structure to a rather unstructured process. The thesis cannot definitively argue this, lacking empirical backing, but it hypothesizes that the absence of clear guidelines for innovation may contribute to its challenges. Many academic papers, including this one, point out how complex innovation is, how it changes for each setting, for the desired outcome, depending on what is being measured. Academics and practitioners should not fear innovation. Instead, its complexity should be a trigger for curiosity. Innovation should not be about luck and coincidence. It should be something that is resulting from rolling up sleeves and working with the right tools in the right way.

## Chapter 6. Conclusion

In conclusion, this thesis highlighted the distinctive practices and strategies that startups and established organizations in Norway employ to foster innovation. Four highly experienced informants participated in the case study, which was analyzed and compared to existing literature in the field. This revealed that both types of organizations, despite their differences in maturity, size and structure, recognize the importance of innovation for growth and success. The case studies underscored the diversity of innovation practices. Lean Thinking, Build-Measure-Learn, Open Innovation, Crowdsourcing, and Stage Gate was used across both types of organizations. However, there was no single formula for innovation that applied universally. Despite this, the case studies had a positive attitude towards collaboration between established organizations and startups. This collaboration could lower the capital problem Norwegian startups face. Additionally, established organizations would benefit from accessing new talent and enhanced innovation capacity, improving ambidexterity. Additionally, the thesis brought forward that the lack of a standardized framework or clear guidelines for innovation could lead to challenges.

The findings present the advantages and challenges of startups and established organizations, provide insights on synergy between organizations to become ambidextrous and critically examine standardization of innovation processes. In light of the findings, it can be proposed that successful innovation requires a blend of structured strategies and adaptable practices. It is an iterative process that should be continually evaluated and adjusted to align with the evolving market conditions and the organization's maturity level. This thesis provides valuable insights for startups and established organizations, underscoring the importance of collaboration, flexibility, and a deep understanding of innovation dynamics. However, given the complexity of innovation and the fluid nature of best practices, further research is encouraged to continue advancing our understanding of innovation in the Norwegian business environment.

### 6.1 Theoretical implications

The theoretical implications of this thesis include supplementing innovation theory with Synergy and utilizing the holistic approach to innovation in a Norwegian context. By underlining the significance of alignment, synergy, and standardization in the innovation process, the findings of this study add to the wide range of literature on innovation theory. Additionally, the thesis presents Synergy as a new function in achieving ambidexterity which may lead to new directions in the research field of innovation theory. Overall, by utilizing a holistic and organic perspective on innovation, the thesis comprehensively explains how innovation strategies and practices are developed and executed. This approach has implications for developing future theoretical frameworks regarding the same topic.

## 6.2 Practical implications:

The practical implications of this thesis include providing context to innovation frameworks, Cultivating ambidexterity and standardization of innovation. Both startups and established organizations might use these insights to develop their approach to innovation. To improve their innovation mechanisms, they can emphasize alignment, synergy, and standardization. Based on the insights on synergy, organizations could gain from encouraging an open and collaborative culture to become more ambidextrous. Additionally, the discussion on standardization may offer organizations context for developing structured innovation processes, reducing risk and increasing effectiveness. Overall, the thesis takes a holistic approach to the study and organizations can comprehend the difference between theoretical innovation frameworks and real-world applications. This insight may encourage the development of more practical and effective innovation strategies.

## 6.4 Limitations

The thesis encounters limitations, including the potential bias related to data discrepancy, which is addressed in the methodology section. Additionally, the research design relies on a limited number of cases, which may not fully represent the diverse range of how organizations work with innovation strategies across industries and regions. The findings may be influenced by the specific characteristics and contexts of the selected cases, limiting their applicability to a broader population. Moreover, innovation is A complex phenomenon involving many factors beyond this thesis's scope. While this thesis focuses on aspects such as ambidexterity, innovation culture, measuring innovation, synergy, and standardization, it is important to recognize that innovation encompasses a broader spectrum of influences and considerations. Despite these limitations, the case study is a valuable exploratory tool for understanding the complexities and nuances of innovation in established organizations and startups, and the synergy. It provides a rich source of qualitative data and contextual understanding, which can inform further research and guide practitioners in pursuing successful innovation strategies, practices and collaborations.

## 6.3 Further research

There are numerous opportunities for further investigation corresponding to the limits of this thesis. The first suggestion would be to conduct an in-depth examination into the nature of radical vs incremental innovation in both new and established businesses. This could entail an assessment of multiple industries, emphasizing on the distinct elements and procedures that contribute to the success of each kind of innovation. Secondly, a longitudinal study examining how innovation has changed through time might provide insightful data. Although innovation is dynamic, knowing its trajectory in various industries can assist keep research up to date and indicative of evolving patterns. Third, additional research may be done to determine when and how structured innovation methods, like innovation practices or strategies, are required. This can also include investigating how big an organization is before the need for an innovation strategy trumps the culture of innovation. Lastly, the dynamics of collaborations between startups and well-established organizations for fostering innovation, particularly

radical innovation, might be researched to provide additional insight on how such relationships affect the larger innovation ecosystem. This study might investigate how these collaborations differ between industries or are affected by the innovation approach of choice.

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