

NHH

Norwegian School of Economics
Bergen, Spring 2020



Strategic Agility: Adapting and Renewing Strategic Direction

An Exploratory Case Study

Džudera Glesne & Madelen Pedersen

Supervisor: Professor Inger G. Stensaker

Master's Thesis in Strategy and Management
MCs in Economics and Business Administration

NORWEGIAN SCHOOL OF ECONOMICS

This thesis was written as a part of the Master of Science in Economics and Business Administration at NHH. Please note that neither the institution nor the examiners are responsible – through the approval of this thesis – for the theories and methods used, or results and conclusions drawn in this work.

Abstract

This study examines the research question: *How can established firms adapt and renew their strategic direction through agile ways of working?* An exploratory case study of an IT Consultancy Firm was conducted. 11 informants from the case company were interviewed, where the informants represented consultants with different roles and backgrounds.

The existing literature on organizational agility has been reviewed and used to discuss the findings of this study. Strategic agility, as a highest level of organizational agility, has emerged as increasingly interesting and relevant topic in today's dynamic environment. Established firms experience rapid changing business demands that require fast adaptation. Agile ways of working have emerged as a solution when operating in uncertain environments.

The findings of the study identify that the fundamental step towards strategic agility, is agile ways of working, including organizational structure of autonomous, cross-functional teams, and implementation of adapted processes from agile methodologies that are in alignment of established firms' needs. The study locates that the crucial factors needed to enable strategic agility, are agile management and learning culture. The absence of the enablers poses challenges when conducting an agile transformation, as optimal performance of teams is dependent on management and culture. This research then uncovers that through well-functioning agile ways of working and enablers in place, established firms achieve the outcomes of flexibility, speed, customer orientation, and engagement. Then firms become in a better position to adapt and renew their strategic direction.

Additionally, this study finds that the innovations taking place in established firms are limited to the incremental type. For radical innovations to be discovered, there is a need for other mechanisms in addition to agile ways of working, as strategic agility implies adaptation and renewal of strategic direction when new opportunities within existing and new business models arise.

Preface

This thesis is written as a part of the Master of Science in Economics and Business Administration at the Norwegian School of Economics (NHH) with specialization in Strategy and Management. The thesis is a part of an ongoing research program, the Future-Oriented Corporate Solutions (FOCUS), within the project of Radical Technology-Driven Change in Established Firms (RaCe) that investigates on how established firms may respond to and manage radical technology-driven change.

Working with this thesis has been comprehensive and challenging. Having each other through the whole process of writing has been invaluable, especially during the Covid-19 pandemic. It has been a semester full of new insights about the research topic on organization agility, increased knowledge in internet-mediated communication, deep discussions, many cups of coffee and laughter.

We would like to thank our supervisor Professor Inger G. Stensaker, who has been helpful and provided us with valuable feedback and advices for this master thesis. We are also thankful for providing us with the key contact in the case company of this study.

We will also like to thank the key contact, and the interview participants, who took valuable time out of their busy schedules and showed interest in our research. Without their valuable insight and engagement in the research topic, this research would not have been possible. Lastly, we would like to thank our family and friends for their support and encouragement throughout the whole semester.

Bergen, June 2020

Džudera Glesne

Džudera Glesne

Madelen Pedersen

Madelen Pedersen

Table of Contents

1. INTRODUCTION	6
1.1 STRUCTURE.....	7
2. THEORY	8
2.1 STRATEGIC AGILITY.....	8
2.1.1 The Context of Agility.....	9
2.1.2 Key Components of Strategic Agility.....	10
2.2 AGILE WAYS OF WORKING.....	15
2.2.1 Agile Methodologies.....	15
2.2.2 Autonomous Teams.....	18
2.3 RESEARCH MODEL.....	21
3. METHODOLOGY	23
3.1 RESEARCH DESIGN.....	23
3.1.1 Research Approach.....	23
3.1.2 Research Method.....	24
3.1.3 Research Strategy and Objective.....	24
3.2 DATA COLLECTION.....	25
3.2.1 Context.....	25
3.2.2 Sample.....	25
3.2.3 Semi-Structured Interviews.....	27
3.2.4 Interview Guide.....	27
3.2.5 Interview Process.....	28
3.2.6 Secondary Data.....	30
3.3 DATA ANALYSIS.....	30
3.3.1 Data Preparation.....	31
3.3.2 Coding and Analysis.....	31
3.3.3 Presentation of the Findings.....	33
3.4 RESEARCH QUALITY.....	33
3.4.1 Credibility.....	34
3.4.2 Transferability.....	35
3.4.3 Dependability.....	36
3.4.4 Confirmability.....	36

3.5 RESEARCH ETHICS	37
4. FINDINGS	38
4.1 KEY FINDINGS.....	38
4.2 MODEL.....	38
4.3 AGILE WAYS OF WORKING	39
4.3.1 Drivers of Agility.....	39
4.3.2 Comparison of Agile and Traditional ways of working	42
4.3.3 Agile Methodologies.....	44
4.3.4 Autonomous Teams	46
4.4 ENABLERS.....	49
4.4.1 Management.....	49
4.4.2 Learning Culture	54
4.5 STRATEGIC AGILITY.....	57
4.5.1 Flexibility.....	57
4.5.2 Speed.....	60
4.5.3 Customer Orientation.....	63
4.5.4 Engagement.....	64
4.5.5 Innovation	65
5. DISCUSSION	68
5.1 AGILE WAYS OF WORKING	68
5.2 STRATEGIC AGILITY.....	71
6. CONCLUSION	75
6.1 PRACTICAL IMPLICATIONS	76
6.2 LIMITATIONS.....	77
6.3 FUTURE RESEARCH	78
REFERENCES	79
APPENDIX	87
APPENDIX A: INTERVIEW GUIDE.....	87
APPENDIX B: CONSENT FORM.....	90

1. INTRODUCTION

The present business environment is characterized by trends of quickly evolving environment, constant introduction of disruptive technologies, global competition, and increasingly demanding customers as the information is easy accessible (Aghina et al., 2018; Žitkienė & Deksnys, 2018; Wahyono, 2018). As a consequence, established firms face decreased market predictability, the power in the market has shifted from sellers to buyers, and the threat of lower entry barriers is significant, meaning the traditional ways of getting things done, are becoming less and less effective (Denning, 2015). The traditional organization model evolved primarily for stability in a well-known environment, which assumes the world to be predictable, and when facing uncertainty, it calls for the need to be agile and learn the tactics to effectively manage the unpredictable changes (De Smet, Lurie & St George, 2018; Panda & Rath, 2015).

In recent years, a trend to become an agile organization has emerged as a solution enabling organizational long-term survival, in a world where established firms must deal with unexpected and dynamic changes (Sherehiy & Karwowski, 2014; Dybå & Dingsøy, 2009; Rigby, Sutherland & Noble, 2018). In a relatively recent survey of 2500 respondents from established firms in various industries around the world, 75 percent responded that organizational agility is a top or top-three priority, and nearly 40 percent are currently conducting an agile transformation (Salo, 2017; Aghina et al., 2018). Agility has emerged as a new buzzword, where the majority of established firms aim to become agile due to the associated benefits of being able to adapt and renew the strategic direction (KPMG, 2019). This prospering notion is referred by Doz & Kosonen (2007a) as *strategic agility*.

Nevertheless, research indicates that an agile transformation is a stepwise approach and not something that happens overnight. Some organizations, including Facebook, Netflix and Spotify, are born agile and have used agile principles from the start. For established firms, it can be demanding to customize agile optimally for the individual business (Brosseau, Ebrahim, Handscomb & Thaker, 2019; KPMG, 2019). Although there are many different paths to agility, successful agile implementation requires adapting all elements of an enterprise such as strategic direction, technology, organization, and people to the unexpected changes (Brosseau et al., 2019; Sherehiy & Karwowski, 2014).

Established firms claiming to be agile organizations, are characterized by *agile way of working* (Kroll et al., 2017). These firms implement agile ways of working through changing from hierarchical organizational structure to team structure, and creating self-organized teams characterized by autonomy and cross-functional roles. In addition, it requires implementation of new processes, rooted in agile methodologies such as Scrum and Kanban. These methodologies serve established firms with a wide variety of processes to follow, including working in short planning cycles, customer collaboration, and continuous development and learning.

However, there is limited research evidence, confirming whether agile ways of working actually gives established firms the ability to adapt and renew their strategic direction. Within this setting, the purpose of this study is to contribute to increased insight into if and how established firms can adapt and renew to constantly changing environments by adopting agile ways of working. Thus, the following research question will be addressed:

How can established firms adapt and renew their strategic direction through agile ways of working?

1.1 Structure

This study is structured in six sections including the introduction section. In section 2, the literature which is considered to be the most appropriate to answer the research question of this study is presented. In section 3, the methodology is described, as well as the strengths and weaknesses of the methods used, and some ethical considerations. Section 4 describes the results from the data collection and analysis. How findings are related to the theoretical foundation of this study are then discussed in section 5. Lastly, in section 6 the conclusion in relation to the research question is presented. Section 6 additionally address the study's contribution, practical implications, limitations of the study and suggestions for future research.

2. THEORY

In this section, existing literature relevant for the research question is reviewed, and is referenced when discussing the findings later. The section starts with introduction of the concept and context of strategic agility, followed by the review of key capabilities enabling strategic agility. Then, agile ways of working including agile methodologies and autonomous teams, are examined. Lastly, the model based on the literature review is created and presented in order to give a clear overview of the literature review.

2.1 Strategic Agility

Within the business environment, agility is commonly understood as the ability of the firm to quickly respond and adapt to continuous changes in the markets, thus organizational agility acts as a performance outcome (Doz, 2020; Overby, Bharadwaj & Sambamurthy, 2006; Sherehiy & Karwowski, 2014; Žitkienė & Deksnys, 2018). The literature review reveals that there is no consensus of the definition of organizational agility (Felipe, Roldán & Leal-Rodríguez, 2016; Overby, Bharadwaj & Sambamurthy, 2006; Sherehiy & Karwowski, 2014; Wahyono, 2018). To cite Williamson (1999), big ideas often take long time to take definition. The fragmented views on agility adopted by researchers has led to different definitions and concepts of the same objective as a consequence of focusing on separate functional or structural areas of the businesses (Ravichandran, 2018; Žitkienė & Deksnys, 2018). However, the latest research shows increased interest in organizational agility as an organizational-wide phenomenon affecting the entire organization and its strategic actions (Wendler, 2013). This is also referred to as strategic agility, which is the focus of this research (Doz, 2020).

To provide a clear understanding of the term strategic agility, the term of agility is examined first. For organizations to be able to deal with uncertain and constantly changing environments, *organizational adaptivity* and *organizational flexibility* emerged as some of the first terms that characterized an organization which was able to adjust to changes (Sherehiy, Karkowski & Layer, 2007). Gunasekaran (1999) refers to agility as the *ability of surviving and prospering in a competitive environment of continuous and unpredictable change by reacting quickly and effectively to changing markets, driven by customer-defined products and services*. Accordingly, Yusuf, Sarhadi and Gunasekaran (1999) apply competitive bases such as speed, flexibility, innovation, proactivity, quality and profitability that influence organizational agility. In addition to attributes of speed and flexibility, Goldman, Nagel and Preiss (1995)

propose an equally important attribute of response, and describes an agile organization as one which is profitable in continuously changing environment and is able to adapt to unpredictable customer habits (Sherehiy et al., 2007). Following, Kidd (1994) focus on a proactive and rapid attribute of response when facing unexpected and unpredicted changes. Overby et al. (2006) decomposes agility into two main components: sensing and responding, and defines agility as *the ability of the firm to sense environmental change and respond rapidly by reconfiguring its resources, processes and strategies*. Additionally, Overby et al. (2006) adds a strategic element to the sense-respond dimension. When firms have strong sensing and responding capabilities, they are in a position to adjust their strategic direction (Žitkienė & Deksnys, 2018). Accordingly, Doz and Kosonen (2007a) refer to strategic agility and define it as the *capacity of an organization to continuously adjust and adapt strategic direction in core business in order to create value for the firm*.

From the literature review it appears that agility can be achieved in different organizational levels, where strategic agility can be understood as organizational-wide agility when scaling up agility from team level to organizational level (Laanti, 2014; Rigby et al., 2018). Further, Denning (2017) distinguishes between two types of organizational-wide agility: *operational agility* and *strategic agility*. While operational agility is about exploiting existing business model, and thus making the existing products better, faster and cheaper for existing customer, strategic agility is related to the creation of new markets with new products to reach new customers through sensing and seizing opportunities (Sull, 2009; Denning, 2017). Operational agility is necessary for established firms to stay in business, and it lays a foundation towards achieving strategic agility (Denning, 2017). Thus, strategic agility can be understood as the highest level of organizational agility, which includes adaptation and renewal of the strategic direction when new opportunities within existing business model and for new business models, are discovered in dynamic environments.

2.1.1 The Context of Agility

Agility, which originally has its roots in manufacturing context (Rigby, Sutherland & Takeuchi, 2016a; Denning, 2016a; Žitkienė & Deksnys, 2018), was recognized in application to business environment by practitioners and researchers in the early 1990's, when faced dynamic market conditions (Harraf, Wanasika, Tate & Talbott, 2015). With the introduction of software development, challenges related to the use of the traditional *waterfall* development emerged.

Long lead times and preliminary decisions made in a project, that were not possible to change in a later phase, posed a challenge when markets began to change rapidly and unpredictably (Rigby et al., 2016a). The challenges were the antecedents for the foundational document, *the Manifesto for Software Development* of 2001 (herby: Agile Manifesto) created by a group of *frustrated* software developers. Agile Manifesto was built on four distinctive values: 1) individuals and interactions over processes and tools, 2) working prototypes over comprehensive documentation, 3) customer collaboration over rigid contract, and 4) responding to change rather than following a plan. Additionally, twelve principles were included to guide the achievement of the values. Agile Manifesto laid the foundation for the main elements and principles of agile software development (Beck et al., 2001; Williams & Cockburn, 2003; Rigby, Sutherland & Takeuchi, 2016b).

Since the introduction of the Agile Manifesto, the concept of agility has become a widespread interactive development. All emerged methodologies that include the agile elements proposed in the Agile Manifesto, are considered to belong to agile practices (Rigby et al., 2016a). Software is keep entering new and diverse industries, and transforming the ways business is done, which makes enterprises to embrace agility regardless of the product of service they are providing (Gothelf, 2014). Additionally, established firms operating in information intensive industries experience rapid changing business demands, which require fast adaptation (Vlietland, Solingen & Vliet, 2016). Agility today is often referred to as change management and strategic positioning, which is also reflected in the increased interest of agility at organizational-wide level among practitioners (Sherehiy et al., 2007; Welder, 2013; Žitkienė et al., 2018).

2.1.2 Key Components of Strategic Agility

The review of the strategic agility literature shows that strategic agility is achieved when organizations develop a particular set of capabilities which constitutes the key dimensions of strategic agility. The work by Doz and Kosonen (2007a) suggests three main meta-capabilities that enhance an organization's ability to renew its business model and thus enable strategic agility: *strategic sensitivity*, *resource fluidity* and *leadership unity* (Doz & Kosonen, 2010; Doz, 2020). All three capabilities must be developed together to function in an integrated manner in achieving strategic agility (Doz, 2020). First, strategic sensitivity is explained as the sharpness of perception of, and the intensity of awareness and attention to, strategic situations as they

occur, in real time, or very close to real time (Doz, 2020). It is the ability of an organization to identify business opportunities and threats, and be sensitive for the renewal and transformation of existing business (Doz & Kosonen, 2010; Doz, 2020). The achievement of the ability requires a shift from foresight-driven strategic planning to insight-based strategic sensitivity, where the focus should be directed in sensing the situations rather than anticipations about the future (Doz & Kosonen, 2007a). Strategic sensitivity is observed to be achieved when having a more open strategy process through fostering open strategic conversations. Additionally when allowing experiments to take place and facilitating high quality internal dialogue and ensuring internal connectivity, the ability of strategic sensitivity can be built (Doz & Kosonen 2007a; Doz, 2020; Morton, Stacey & Mohn, 2018).

Second, resource fluidity is an internal capability to reconfigure activity systems and redeploy resources rapidly, thus it is the ability of reallocating resources, in particular human resources, to new strategic opportunities as they develop (Morton et al., 2018; Doz & Kosonen, 2007a). It requires a shift from resource allocation and ownership, to resource sharing and leverage through enabling flexible multi-dimensional structures and decentralized initiatives, mobilizing knowledge and people between units and transparent modular business process (Doz & Kosoen, 2007a; Doz, 2020; Morton et al., 2018).

Third, leadership unity, also referred as *collective commitment*, is the ability of the senior management to make and implement bold joint strategic decisions fast, without being caught up in *win-lose* politics (Morton et al., 2018; Doz, 2020). Top-management must make and implement decisions collectively as a team, and it calls for a fundamental change in the way top teams works and how their members relates to the CEO. Doz and Kosonen (2007a) call for new adaptive leadership, where it goes from individual-dependent responsibilities to interdependent collective commitments - a new deal at the top with mutual dependency, shared agenda and CEO as facilitator rather than a hero (Heifetz & Laurie, 2001; Doz & Kosonen, 2007b; Morton et al., 2018; Doz, 2020). While Doz and Kosonen (2010) focus on top-management's collective commitment, which can be classified as part of human resources capabilities, Mavengere (2013) extends this dimension referring to *collective capabilities* of the whole organization, which include human resources capabilities and infrastructure and information capabilities. Collective capabilities as referred by Mavengere (2013) thrive on the gains of working together more than individual benefits summed up, and it requires

competences and collaborations between employees through open communication and knowledge- and information sharing.

Accordingly, dynamic capabilities framework developed for sustaining competitive advantage in an increasingly interdependent environment, can be applied to examine how strategic agility can be achieved (Teece, Pisano & Shuen, 1997; Teece & Pisano, 2003; Teece, Petraf & Leih, 2016; Lengnick-Hall & Beck, 2009). The framework makes a distinction between *ordinary capabilities* and *dynamic capabilities* (Zollo & Winter, 2002; Teece et al., 2016). Ordinary capabilities are referred to as operating routines (Zollo & Winter, 2002), pertaining the current operations of an organization (Teece et al., 2016), whereas the dynamic capabilities are higher-level activities, and a modification of the operating routines, allowing the organization to grow and change through innovation enhancing strategies (Zollo & Winter, 2002; Teece et al., 2016). Teece et al. (2016) point out to the fact that when organizational environment is characterized by deep uncertainty, strong dynamic capabilities are necessary when fostering strategic agility, which is likely to be a valuable organizational attribute (Oliva, Couto & Santos, 2019). Dynamic capability is defined as *the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments* (Teece et al., 1997). Thus, dynamic capabilities are key determinants of an organization's *capacity to innovate, adapt to change, and create change that is favourable to customers and unfavorable to competitors*, and they represent a specific type of organizational and managerial competencies (Teece et al., 2016).

Dynamic capabilities underpinning strategic agility, can be categorized in three main types: the capacity to sense and shape opportunities (*sensing*), the capacity to seize opportunities (*seizing*) and the capacity to maintain competitiveness through reconfiguring the enterprise's assets (*shifting*) (Overby et al., 2006; Baškarada & Koronis, 2018; Teece, 2007; Teece et al., 2016). These capabilities are essential when an organization aim to sustain itself in the longer-term (Teece, 2007), and both managerial and organizational processes can lead to development of an organization's dynamic capabilities (Harris, Kaefer & Salchenberger, 2013; Teece, 2007; Nonaka & Takeuchi, 1995). The first capability is about sensing and/or generating options for growth before the market logics of those options become apparent to all (Teece et al., 2016). It involves an entrepreneurial set of skills including exploration of technological opportunities, probing markets through building and testing hypothesis, listening to the customers, observing

competitor's behavior, and constantly scanning the business environment for trends (Teece, 2011; Harris et al., 2013). To achieve sensing capability, individuals in an organization must scan, learn and interpret both existing and new data, while management need insights from large quantities of information (Harris et al., 2013).

Second, the capability of seizing is about implementation and getting things done (Teece et al., 2016). It involves business model and strategy change that is underpinned by the insights gained through sensing and shaping activities (Baškarada et al., 2018). Further, seizing includes understanding resource needs and making decisions about investing in technology and other resources (Harris et al., 2013). Cross-functional teams are suggested to shorten time-to-market, in order to better and faster seize opportunities through resource mobilization (Teece, 2007).

Lastly, the capability of shifting, also referred as *reconfiguring*, is needed when new opportunities are addressed or seized. It involves a realignment of resources in order to increase value (Harris et al., 2013). Teece et al. (2016) refer to building minimum viable product (MVP), launch it, learn quickly, adjust and improve, also referred to as *build-measure-learn*. Thus, the capability of shifting is about pivoting the resources and continuously renew them in order to answer to the changing environment. Reconfiguring of the resources is also needed to break down the rigidities that develop over time from standard operating procedures. Additionally, reconfiguring includes managing strategic fit, which involves the realignment of assets to increase value of the firm, as the organization's resources must be aligned in a way to achieve best strategic fit (Harris et al., 2013; Teece, 2011; Teece et al., 2016). Shifting is achieved through enhancing communication between management and aligning their incentives, and through organizational support (Harris et al., 2013).

When compared the three meta-capabilities suggested by Doz and Kosonen (2007a) and the dynamic capabilities proposed by Teece et al. (2016), there are several similarities and overlapping elements between the capabilities suggested to enable strategic agility. For the purpose of this research, it is found reasonable to combine the over examined capabilities into one sub-set of capabilities required for established firms to achieve strategic agility: *strategic sensitivity*, *strategic response* and *collective commitment*. These dimensions are described in Table 1 and referred to their origin literature.

<i>Key Components of Strategic Agility</i>	<i>Description</i>	<i>Origin</i>
Strategic Sensitivity	The ability of an organization to anticipate and identify external opportunities and threats (strategic situations) in real time or very close.	Doz & Kosonen (2007a): <i>strategic sensitivity</i> Mavengere (2013): <i>collective capabilities</i>
Strategic Response	The ability of an organization to implement strategic changes, and modify and redistribute resources rapidly to best fit the new strategic situation.	Doz & Kosonen (2007a): <i>resource fluidity</i> Teece et al. (2016): <i>seizing and shifting</i>
Collective Commitment	The ability of an organization and its management to collaborate through open communication and mutual information sharing. Collective commitment capabilities are required to enable the other dimensions of strategic agility, because successful sensing and responding is dependent on capable human resources and efficient information capabilities.	Doz & Kosonen (2007a): <i>leadership unity</i> Mavengere (2013): <i>collective capabilities</i>

Table 1: Strategic Agility Constructing Components

Existing research on strategic agility has focused on the three capabilities as antecedents of strategic agility, outlining that by having such capabilities, strategic agility is achieved. In this study, the aim is to examine if and how agile ways of working, presented in next subsection, lead to the development and achievement of these capabilities: strategic sensitivity, strategic response and collective commitment. Thus, for the purpose of this study, the three capabilities are approached as *components* of strategic agility. Figure 1 illustrates the three components of strategic agility.

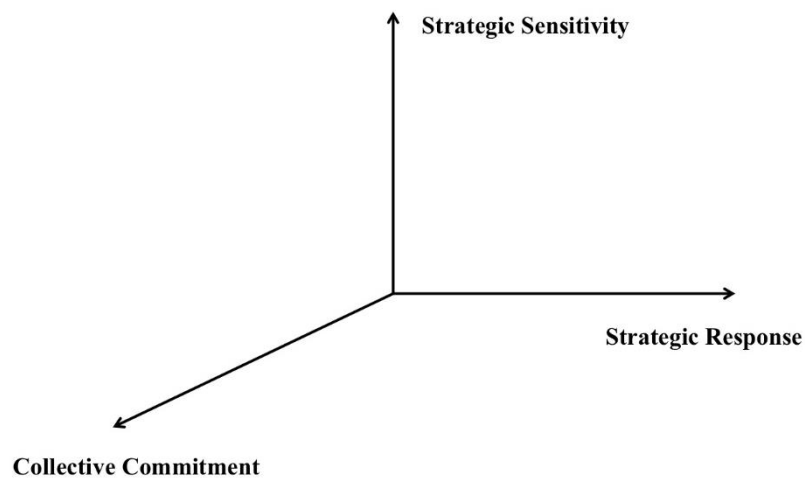


Figure 1: Strategic Agility Components (based on a slight reframing of Doz, 2020)

2.2 Agile Ways of Working

Agile development frameworks known as agile methodologies, constitute the fundamental part of agile ways of working (Rigby et al., 2016a). At the core of these methodologies is the idea of autonomous cross-functional teams (Stray, Moe & Hoda, 2018). Agile methodologies provide guidelines involving a set of values, principles and practices for how teams can build their processes when implementing agility (Rigby et al., 2016a). When implementing agile ways of working, established firms are referred to as *agile organizations*. A common approach for implementing agile ways of working is to start small, by adopting agile methodologies in IT section, and then to be spread to other functions in the organization through help from original practitioners of agility, known as agile coaches (Puranam & Clément, 2020; Jacobs, Schlatmann & Mahadevan, 2017; Rigby et al., 2016a). In this subsection agile ways of working are examined, with focus on agile methodologies and autonomous teams.

2.2.1 Agile Methodologies

Some of the most widely-used agile methodologies include Scrum, Kanban, Extreme Programming (XP), Crystal, Dynamic Systems Development Method (DSDM), Adaptive Software Development (ASD), Future Driven Design (FDD) and Lean Software Development (LSD) (Conboy, 2009; Vinekar, Slinkman & Nerur, 2006; Ahmad, Markkula & Oivo, 2013). Recently, the Scrum and Kanban methodologies are among the two most powerful methods adopted by organizations for software development (Ahmad et al., 2013).

Scrum

Scrum is the first and most common agile software development methodology (Vlietland et al., 2016; Holtzhausen & Klerk, 2018), that has gained popularity among various industries and been used extensively over the last decades (Schwaber & Sutherland, 2017; Holtzhausen & Klerk, 2018). The term Scrum was first introduced in 1986, where Scrum was named the new product development standard in auto and consumer product companies. In 1993, Scrum was used for the first time in software projects, and became widespread after the publication of the book *Agile with Scrum* in 2002 (Lei, Ganjeizadeh, Jayachandraw & Ozcan, 2017).

Scrum emphasizes creative and adaptive teamwork in solving complex problems (Rigby et al., 2016a), and consists of events, artifacts, rules, and teams that are self-organized and cross-functional (Schwaber & Sutherland, 2017; Lei et al., 2017; Goncalves, 2018). The Scrum

framework include three roles: Product Owner, Scrum Master, and Development Team Members (Schwaber & Sutherland, 2017; Lei et al., 2017; Vlietland et al., 2016; Goncalves, 2018). The Product Owner is responsible for maximizing value of the products developed by the Development Team Members, and manages a product backlog, where tasks and items are ordered and prioritized to achieve set goals or meet customer needs (Schwaber & Sutherland, 2017; Vlietland et al., 2016; Goncalves, 2018). The Scrum Master is a facilitator, coach and coordinator of the team, and supports the team members to become high performing, by helping them to understand Scrum theory, rules, values and practices (Schwaber & Sutherland, 2017; Holtzhausen & Klerk, 2018). The last role of the Development Team consists of professionals with different expertise, who work to deliver a potentially releasable increment of the product at the end of a fixed period of one month or less, called *Sprint* (Goncalves, 2018).

There are four formally prescribed Sprint events used in Scrum, each having a fixed maximum duration: Sprint Planning, Daily Scrum, Sprint Review, and Sprint Retrospective. These events are specifically designed to enable adaptation, transparency and inspection (Schwaber & Sutherland, 2017; Lei et al., 2017; Goncalves, 2018). Sprint Planning is held prior to every Sprint, in order to determine the work to be performed in the Sprint (Schwaber & Sutherland, 2017; Holtzhausen & Klerk, 2018). During the Sprint starts, the teams have a brief meeting of 15 minutes every day, called Daily Scrum, to plan the work for the next 24 hours, inspect progress, and optimize team collaboration and performance (Schwaber & Sutherland, 2017). In the end of each Sprint, a Sprint Review is held to identify and evaluate the status of what has been achieved during the Sprint. Further, when the Sprint Review is completed and before a new Sprint starts, there is held a Sprint Retrospective meeting to inspect what has been done, and to develop a plan for improvement of work procedures for the next Sprint (Schwaber & Sutherland, 2017; Goncalves, 2018). Overall, Sprints are used to accomplish a project to result in a valuable product increment, by having a goal of what is to be built, a design, and a flexible plan that will guide the work and allow for adjustments on the way (Schwaber & Sutherland, 2017).

Kanban

Kanban is another software development methodology. The Kanban approach was first introduced in the Japanese manufacturing industry in the 1950s, and is a Japanese word meaning *signboard*. In 2004, the use of Kanban originated in software development, and since

then it has become among the most popular methodologies (Ahmad et al., 2013). Kanban emphasizes *just-in-time* delivery, and focuses on having the right work done at the right time, by prioritizing tasks according to what needs the most attention in order to reduce risks (Lei et al., 2017). Kanban operates under the assumption that the power to make improvements is inherent in the existing process, and that no target level for the future are defined. The path evolves through small, continuous, evolutionary steps. Hence, Kanban makes suggestions *that* something should be done, rather than stipulating in terms of *how* something should be done (Leopold & Kaltenecker, 2015). Similar to Scrum, Kanban have the ability to break down the work into smaller pieces, having self-organized teams, focusing on delivering releasable software early and often, and adapting to changes quickly (Lei et al., 2017).

The main goal of Kanban is to focus on flow (Ahmad et al., 2013; Leopold & Kaltenecker, 2015), seeking to establish a fast, predictable and consistent workflow (Leopold & Kaltenecker, 2015). In order to ensure flow, Kanban aims to visualize the work process using a Kanban board (Ahmad et al., 2013; Leopold & Kaltenecker, 2015), that shows assigned work of each developer, clearly communicates priorities and highlights bottlenecks. Additionally, the goal is to minimize *work-in-progress* (WIP), which means to develop only those items which are requested, and thus produce constant flow of released products to the customers, as the developers focus on few items only at given time. Thus, the Kanban method aims to quickly adapt the process by using shorter feedback loops (Ahmad et al., 2013). In order to coordinate the work and sustain communication between the team members, Kanban is also known for daily stand-up meetings, where team members discuss and organize their work together, and try to eliminate obstacles which have emerged (Leopold & Kaltenecker, 2015).

Although agile methodologies are increasingly embraced among industries, few companies use *pure* Scrum or Kanban, but rather a combination of both (Julian, Noble & Anslow, 2019). There is no *one-size-fits-all* solution, thus organizations adopt agile methodologies differently, depending on their specific problems, resources, goals or expectations (Kiv, Heng, Kolp & Wautelet, 2019). Regardless of which processes implemented from the agile methodologies, agile ways of working require team structure in organizations.

2.2.2 Autonomous Teams

Agile organizations are characterized by a flexible and flat organizational structure (Aghina et al., 2018; Žitkienė et al., 2018), containing of *teams* working on projects or products, with a constant focus on customer needs and continuous development (Dearstyne, 2018). The first and almost universal characteristic of an agile organization is working in *autonomous, cross-functional* teams (Denning, 2016b). When the teams are autonomous, they have significant authority and responsibility for many aspects of their work, including planning, scheduling, assigning tasks among members, and making decisions (Moe, Dingsøyr & Dybå, 2008). This makes autonomous teams responsible for that they deliver (Strode, 2015). The emphasis is on quick, effective and continuous decision-making, where adapting to changes is valued, rather than sticking to a plan (Dearstyne, 2018). Thus, autonomous teams speed up decision-making by working closer to the customers and being able to make small, daily decisions on their own (Bossert, Kretzberg & Laartz, 2018).

Further, as teams are autonomous, they find their own way of working, taking their own initiatives and risks, that stimulates participation and involvement (Moe et al., 2008). It may increase team members' emotional attachment to the organization, resulting in greater commitment, motivation to perform, and desire for responsibility (Strode, 2015). Hence, autonomous teams leads to employees caring more about their work, which may result in higher productivity, improved decision quality, and greater creativity (Moe et al., 2008). Additionally, by having sufficient autonomy, teams try to continuously exceed the boundaries of what the team believes it is capable of, by experimenting with ideas potentially leading to innovations. However, such experimentation is dependent on the culture of the organization (Stray et al., 2018; Takeuchi & Nonaka, 1986).

Autonomous teams are also cross-functional, meaning the teams are composed of a small number of people with different functional expertise, in order to secure that the teams are having all the skills and resources needed to complete its tasks internally (Rigby et al., 2016a; Bossert et al., 2018). Cross-functional teams are characterized by operating with alignment, accountability, expertise, transparency, and collaboration (Aghina et al., 2018). As the focus is on developing and delivering products and services fast to customers, the cross-functionality enables teams to solve complex tasks, avoid bottlenecks and ensure fluidity and effectiveness, as team members can interact across the organization, share roles, and have multiple roles, to

assist each other when needed (Aghina et al., 2018; Strode, 2015). Communication and coordination among team members, through daily stand-up or retrospective meetings adopted from agile methodologies, appear as especially important, creating a common understanding for the respective tasks and prioritizations (Moe et al., 2008; Strode, 2015).

Although autonomous teams are given responsibility for their product or project, they often experience that they are not achieving sufficient autonomy (Moe et al., 2008; Stray et al., 2018). It can be related to aspects such as not having clear or common goals, too many dependencies to others, absence of trust, and lack of coaching and support by management (Stray et al., 2018). For autonomous teams to be able to organize and manage themselves, the involvement of management and their control can delay the efficiency of the teams (Stray et al., 2018). Such condition can be described as *AgileFall*, which is an ironic term used to describe the condition where an organization claims to be agile, but apart from having team structure, it keeps using waterfall development techniques (Blank, 2019). In this state, the management often acts bureaucratic and sets restrictions to the teams, because they believe that the teams cannot deliver disciplined efficient performance (Denning, 2016b). There is simply a matter of mixing two work methods that do not match together (Blank, 2019). Thus, the ability of developing and implementing products and services successfully and fast, is dependent on the level of autonomy given by management to the teams (Rigby et al., 2018).

Despite for autonomy being an important hallmark of teams in agile organizations, research focusing on organizational-wide agility argue that autonomy might be challenging when scaling up the number of teams (Moe, Dahl, Stray, Karlsen & Schjødt-Osmo, 2019). Increased number of teams and complex tasks across teams require a certain level of autonomy and support from management, meaning the degree of autonomy given to teams has to be evaluated based on characteristics of the projects (Stray et al., 2018).

Further, working in autonomous teams include continuous improvement and learning from processes and challenges in order to develop efficiency in teams (Harraf et al., 2015; Moe, Dingsøyr & Røyrvik, 2009). Teams in agile organizations are characterized by working in short cycles on small tasks, which involve planning, development, testing and deliveries, with the aim to bring value to customers and get continuous feedback from them (Denning, 2016b; Gren, Goldman & Jacobsson, 2019; Rigby et al., 2016a; Oliva et al., 2019). Testing and customer feedback allows the teams to improve products in small but frequent steps (Jacobs et

al., 2017; Bossert et al., 2018; Dearstyne, 2018; Oliva et al., 2019). As customer habits, preferences and requirements are unpredictable and constantly changing, teams need to continuously adapt and customize its products and services until a final result that satisfy customer expectations is completed (Dearstyne, 2018; Žitkienė et al., 2018; Gren et al., 2019).

When working in teams with rapid learning cycles, it requires a new way of communicating, where team members can easily collaborate with others in the organization having relevant knowledge, and openly share ideas and the results of their work (Aghina et al., 2018; Jacobs et al., 2017; Parker, Holesgrove & Pathak, 2015). Thus, team members can expand their knowledge and learn from their own and others' successes and failures (Flumerfelt, Siriban-Manalang & Kahlen, 2012; Aghina et al., 2018). This implies an organizational culture enabling an environment of psychological safety where all issues can be raised and discussed and where members can be open and transparent with each other (Aghina et al., 2018).

Despite the fact that agile ways of working seem to be a widely known solution in unpredictable and rapidly changing environments, there is expressed some doubts to whether agile ways of working solve all problems (Puranam & Clément, 2020). Today, it is widely signalized that every established firm regardless the industry it operates in, *must* become an agile organization, and a particular set of organizational structures and practices constitute the path to get there. Agile ways of working promise that established firms can become both efficient and innovative, however researchers argue it is hard to achieve both (Puranam & Clément, 2020). Furthermore, it is unclear if agile ways of working are successful outside software development, and there is weak evidence that agile ways of working can be scaled at organizational-wide level.

Drawing on the work by Abrahamson (1991), a perspective of *fads and fashion* can be applied to the agile ways of working. When facing conditions of uncertainty, established firms are more likely to imitate new ways of working proposed by fashion-setters, such as industry experts, or imitate other firms which have already implemented agile ways of working. Within this context, agile ways of working might just be another trend, which according to Abrahamson (1991) most likely will be replaced by new trends in the future (Puranam & Clément, 2020).

2.3 Research Model

Based on the reviewed and presented literature, a research model was developed to visualize the research question, and to provide a basis for further data collection and discussion. Figure 2 illustrates the research model.

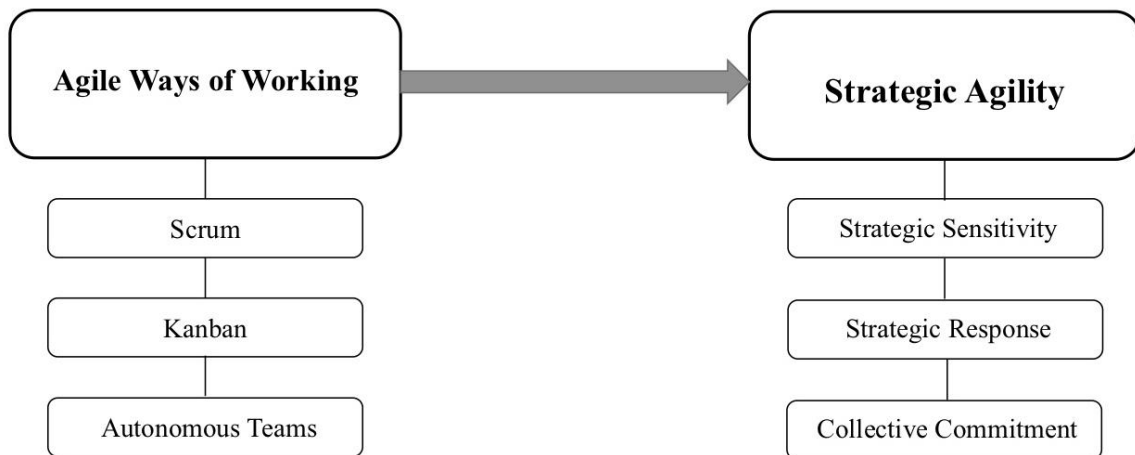


Figure 2: Research Model

In this study, agile ways of working represent an independent variable, and strategic agility is an dependent variable resulting from agile ways of working. Agile ways of working consist of agile methodologies such as Scrum and Kanban, and autonomous teams, implemented by established firms. As outlined in the literature review, implementation of agile ways of working includes changing organizational structures through creating a team structure, where teams are given autonomy, and are adopting processes from agile methodologies. Autonomous teams are characterized by working based on short planning cycles, customer feedback, continuous development and learning. There is a consensus among researchers that agile teams having autonomy and being cross-functional, are fundamental in agile organizations (Denning, 2016b).

Strategic agility in this research is presented as the highest level of organizational agility, that enables adaptation and renewal of the strategic direction. It consists of three key components representing three different capabilities that established firms aim to achieve through agile ways of working, in order to increase efficiency and respond to the increasingly dynamic environment. Thus, the research model shows that agile ways of working have an impact on

how established firms can achieve strategic sensitivity, strategic response and collective commitment, which constitute strategic agility (Doz & Kosonen, 2007a; Mavengere, 2013; Teece et al., 2016).

3. METHODOLOGY

This section describes the methodology used to answer the research question. First, the research design is explained, followed by a presentation of the data collection and data analysis. Further, the quality of the qualitative research method is evaluated, and lastly, the research ethics are discussed.

3.1 Research Design

A research design is a general plan of how the research question will be answered, and it has implications for the research process (Saunders, Lewis & Thornhill, 2016). There are three main types of research design; *exploratory*, *descriptive* and *explanatory*. The choice of the research design is dependent on the nature of the research question. The aim of this research is to examine *how can established firms adapt and renew their strategic direction through agile ways of working*, and since the research topic is relatively new and there is limited previous research within this subject, this study uses the exploratory research design. The exploratory design has a flexible approach, and intends to construct explanations as new pieces of information are available and collected (Ghauri & Grønhaug, 2005). In this research, the exploratory design is useful to gain new insights to further develop an understanding of a phenomena, or to clarify current understandings (Saunders et al., 2016).

3.1.1 Research Approach

There are three main approaches to the research; *deduction*, *induction* or *abduction* (Saunders et al., 2016). Deduction tests and develops existing theory, while induction collects data about a phenomenon and develops new theory. The approach of abduction is a combination of deduction and induction, as it collects data to explore a phenomenon, identifies themes, explains patterns, generates new theory or modifies the existing theory (Saunders et al., 2016). Which approach is most suitable for the research is dependent on the nature of the research question.

In this study, an abductive research approach is applied. The research setting was decided deductively as the research question is based on the existing theory within the context of strategic agility. However, as a consequence of limited theory of strategic agility, the data was collected inductively. Inductive approach is appropriate as the aim in this research was to develop new insights to the strategic agility theory. Further, the analysed data is considered in

relation to existing theories of strategic agility. The abductive approach begins typically with an observation of a surprising fact, and then seeks to build theory of how this have occurred (Saunders et al., 2016). This study is interesting and worth investigating, because established firms are increasingly approaching agile ways of working with the goal to be able to adapt and renew in dynamic environments, and the research question aims to answer: *How can established firms adapt and renew their strategic direction through agile ways of working?* The combination of an exploratory research design and an abductive approach allows data to drive the focus and analysis of this study, and also provides an opportunity to use the insights from existing literature in order to inform the findings and answer the research question.

3.1.2 Research Method

There are two main research methods; *quantitative* and *qualitative* (Saunders et al., 2016). This research was conducted with the qualitative method. Qualitative research is characterized by non-numerical data, and it focuses on participants' meanings and relationships between them, in order to contribute to the existing literature and give an in-depth understanding (Saunders et al., 2016). To best understand how agile ways of working can allow established firms to adapt and renew its strategic direction, the thoughts and opinions of relevant consultants working with agile transformations in established firms were important to examine. Thus, in order to get an in-depth understanding of the phenomena studied, there was a need of collecting non-numerical data through an interactive process allowing for adaptations. Based on the evaluation of the explorative characteristics of the research question and the abductive approach, qualitative method is suitable for this research.

3.1.3 Research Strategy and Objective

The research strategy is defined as a plan on how to proceed to answer the research question (Saunders et al., 2016). The choice of research strategy is based on the achievement of a reasonable level of coherence throughout the research design, in order to meet the objectives regarding the research question (Saunders et al., 2016). By having an explorative design and qualitative method of data collection, it was suitable to conduct a *case study*. A case study is a research strategy that investigates a phenomena in-depth and within its real-life setting, in order to develop empirical descriptions and theory. Case study is useful for analysing questions of *what*, *why*, or *how* corresponding with the research question examined in this study (Saunders et al., 2016).

The objective of this research is to combine existing theory and the collected data, with the aim to contribute to the strategic agility literature. The research identifies themes and patterns to further develop organizational agility literature with deeper understanding of how agile ways of working can lead to strategic agility. This is done by a single case study on how established firms conduct an agile transformation. The case study was selected because it represents an unique overview, and analyses a phenomena that few have examined before (Saunders et al., 2016).

3.2 Data Collection

To strengthen the in-depth understanding, a combination of different types of sources is encouraged (Saunders et al., 2016). This research is conducted with the use of both primary and secondary data. Primary data is data collected specifically for the purpose of the study, whereas secondary data is data originally collected for other purposes (Saunders et al., 2016). In this research, primary data was collected by ourselves through semi-structured interviews, while secondary data was provided by our informants. This subsection contains a more detailed description of the collected data, and the process on how it was collected and handled.

3.2.1 Context

In this study, the objective was to analyze how established firms by implementing agile ways of working, can adapt and renew in constantly changing environments. In order to be able to study agile ways of working and create an in-depth understanding on how agility can lead to the ability to change strategic direction, there was a need for collecting data from experts working close with established firms conducting agile transformations. The supervisor, Professor Stensaker, provided us with a key contact in a Norwegian IT Consulting Firm, which was the case company for this study. Consulting Firm provides solutions within strategy, design and technology for private and public firms. This case company was suited to answer the research question because of the expert knowledge within established firms and agile ways of working.

3.2.2 Sample

A research sample involves informants that a researcher gets information from in order to answer the research question (Thagaard, 2018). When considering data only from a subgroup rather than the whole population, sampling makes it possible to reduce the amount of data to

be collected (Saunders et al., 2016). In qualitative studies, the aim is not necessarily to generalize based on representative sample, but rather gain in-depth understanding of a phenomenon with limited research (Johannessen, Christoffersen & Tufte, 2011). The use of different forms of sampling strategies, allows to secure a sample which is best suited to provide rich information in order to create an in-depth understanding on the phenomenon studied (Johannessen et al., 2011).

In order to collect meaningful data, researchers need to get access to relevant sources (Saunders et al., 2016). The key contact at Consulting Firm was the one who selected the informants for this study. To ensure a relevant sample for this research, the informants were selected based on *strategic selection* which according to Thagaard (2018) includes informants that are selected based on their qualifications relevant for the research question. The criteria for the selection were that informants were experts, had experience in working with agile transformations in established firms and could provide this study with examples from agile transformations conducted in established firms. The key contact also guaranteed that the respondents worked with different projects, and despite all working as consultants they to some extent had different role descriptions and backgrounds. The roles include team and change management, digital business development, technical development, and service design. In addition, the informants have backgrounds within economics or IT, and hold a variety of experience in Consulting Firm, were one of informants is a part of the senior management group. Drawing on strategic selection, the selection technique approached in this study is *snowball sampling*, as the key contact in Consulting Firm directly contacted the informants that had the required characteristics (Saunders et al., 2016).

A sample size is viewed as sufficient when a researcher has a clear overview of the topic and additional data collection do not provide new information, which is referred as *data saturation* (Saunders et al., 2016). Saunders et al. (2012) as cited in Saunders et al. (2016), proposes a sample size for semi-structured interviews to be between 5 and 25 informants. This study consisted of 11 informants for semi-structured interviews, and despite that the number was decided before the data collection started, the number of informants was sufficient, and the data saturations was achieved in the end of the all interviews. Additionally, the different roles and backgrounds have given us a rich amount of data implying different perspectives and

experiences, which provided a more nuanced and comprehensive picture in order to answer the research question.

3.2.3 Semi-Structured Interviews

A research interview is a conversation between informant and researcher, that allows gathering valid and reliable data relevant for the research question (Saunders et al., 2016). Saunders et al. (2016) differentiates between *standardized* and *non-standardized* interviews, where standardized interviews are structured and formal, while non-standardized interviews are unstructured and informal with no predetermined list of questions prepared. Further, the choice of interview method is dependent on the nature of the research question and the chosen research design (Saunders et al., 2016).

Given the exploratory research question and the case study as research strategy, the primary data in this research was collected through semi-structured interviews, also referred as qualitative interviews. This intermediate of structured and unstructured interviews allows higher level of flexibility than structured interviews, when aligning with the flow of the conversation through opportunity of changing the order of questions from the interview guide (Kvale & Brinkmann, 2015), or when omitting certain questions (Saunders et al., 2016). Flexibility gives informants freedom to express their assumptions, thoughts and experiences regarding agile transformation in established firms. Following, it opens for follow-up questions in order to explore something specific in depth or to clarify it, leading to more meaningful and contentful answers that can increase the insight in the research question (Saunders et al., 2016). In addition to flexibility, the interviews require a certain level of structure through predetermined themes and key questions, in order to be able to compare, draw conclusions and see patterns in the data (Saunders et al., 2016).

3.2.4 Interview Guide

Semi-structured interviews are often characterized by an interview guide prepared by the researcher, consisting of themes and initial questions that is desirable to cover, as there is always a need for some direction and purpose to start an interview (Saunders et al., 2016). When developing the interview guide (attached in *Appendix A*), first the themes reflecting variables studied were derived based on the literature review and discussion with supervisor. Then, the questions were generated from the themes and continuously checked upon the

research question. However, the interview guide was not definite, and could be changed along the way if needed, which gave flexibility to have open conversations during the semi-structured interviews in order to gain in-depth information. For that reason, it should be specified that some answers about specific themes were particularly remarkable, such as the achievement of innovation, and thus more specific questions related to innovation were asked after 5-6 interviews. Such flexibility of the interview guide allowed to focus on what emerged as particularly important and had impact for the study.

In the preparations of the interview guide, the types of questions included were open questions, probing questions, and specific or closed questions (Saunders et al., 2016). Open questions are designed to encourage the informant to provide complementary answers, and were asked to establish a trustful atmosphere. To secure a comfortable setting, each interview started with an introduction of ourselves, followed by questions regarding the informants' background and position, and experience with implementation of agility in established firms. Open questions often start with *what*, *how* or *why* (Saunders et al., 2016), and an example of an open question asked in our semi-structured interviews is; *What does it mean to be agile?* In order to get more details and to explore significant themes further, probing questions are suitable, and these questions often involve follow-up questions (Saunders et al., 2016). An example of probing question asked is; *How do you evaluate the success of agile implementation?* Further, to get more specific information or to confirm a perception, a specific question like; *Can the entire organization be organized this way?* is asked (Saunders et al., 2016). Finally, the informants were asked if they wanted to add something that might be of interest to the study beyond what had already been mentioned.

3.2.5 Interview Process

The interview process in this study can be divided into three stages; prior, during and after interviews. The key contact from Consulting Firm assisted with scheduling the interviews, and it was agreed to conduct interviews over two days at Consulting Firm's headquarter in the end of March 2020. Due to the emergence of the Covid-19 pandemic, instead of conducting interviews face-to-face, the interviews had to be conducted electronically via the internet. According to Saunders et al. (2016), most semi-structured interviews occur on face-to-face basis, but may also be conducted by telephone or internet. The key contact assisted us with informing all informants about the change in the type of the interview. Fortunately, all

informants were still willing to participate in internet-mediated interviews despite the short notice. The opportunity to conduct electronic interviews in this unforeseen situation of Covid-19 was of high importance.

Before the interviews, all informants were contacted by email which included a presentation of ourselves and this study, and practical information about the time frame for interviews. A consent form (shown in *Appendix B*) was attached and asked to be signed prior to the interviews. The consent form contained information about the research project, information about confidentiality and informants' rights. The consent form was developed from a standard consent form drafted by the FOCUS program at NHH. As there were rapid changes in the way the interviews were going to be conducted, due to Covid-19, an invitation to a Skype-meeting was sent in advance of the interviews.

Interviews were conducted in two days, with 5-6 interviews each day with a preset time frame of 90 minutes. The approach of one-to-one interviews was followed, where one person primarily asked the questions prepared in the interview guide, while the other took notes and asked follow-up questions when and if needed. Every interview started with reassuring that informants agreed to audio recording. As the interviews were conducted through a Skype video meeting, an external microphone was connected to the computer in order to secure improved audio quality. All interviews were recorded using an application for audio recording on the computer. Each interview lasted approximately 60-90 minutes, which enabled a few short breaks in between. The conduct of the interviews was successful, despite not being able to meet the informants in person. All informants were very welcoming and interested in contributing to the research project.

After every interview a short note containing a summary of each interview was written down in a word document with the aim to better remember the overall impression. This was especially important in our case where many interviews were conducted during a short time. The general notes taken during the interviews were processed shortly after the interviews were conducted. This was done to get a better overview of all the information presented at the later stage of transcription.

3.2.6 Secondary Data

Secondary data can be used to give additional or different knowledge, interpretation or conclusion to an analysis (Bulmer, Sturgis & Allum, 2009 as cited in Saunders et al., 2016). In this study, secondary data includes *document data* which can be distinguished from text data to non-text data. The secondary data sources shared by the informants through email right after the interviews is non-numerical, and include internal and external documents constituting text data, and a podcast which belongs to non-text category. Table 2 describes the content of secondary data provided.

<i>Secondary Data</i>	<i>Description of Content</i>
Internal Document 1	Overview of key characteristics of agile organizations
Internal Document 2	General presentation slides about agile transformations
External Document 3	Report of how a large international established firm scaled agility
Audio File	Podcast about agile organizations

Table 2: Secondary Data

The information provided through secondary data was used in order to get an additional in-depth understanding of what specific informants talked about and referred to during the interviews. While the analysis of the data presented in section 4. *Findings* is primary based on data gathered from the interviews, secondary data was of significant importance as it contributed to guidance and valuable insights for the analysis and discussion of the primary data.

3.3 Data Analysis

In this subsection, the method underlying the data analysis is presented and explained, which in this study represents the process of preparing, coding and analysing the data. The data preparation implies an explanation of the transcription of conducted interviews. Further, the coding and data analysis are described stepwise by approaching a thematic analysis. Finally, a presentation of findings is introduced, which is further elaborated in the section 4. *Findings*.

3.3.1 Data Preparation

The first step in preparing the primary data for analysis was to transcribe the audio-recorded interviews. This was done shortly after the interviews were conducted, in order to have the respective interview fresh in mind, as it is not only important what the informants responded but also how they responded to different questions is essential. The transcribing process was time-consuming, as it was important to write down exactly what the informants said, while paying attention to the tone in which they responded in and how fast or slow answers were provided. When informants took pauses to think, laugh, and other generic features such as when an informant was engaged or distracted, it was added to the transcripts to better convey the meaning of the answers. Additionally, the notes made during the interviews were helpful as they included the body language observations. According to Saunders et al. (2016) this contextual information is essential not to lose important incidents that affect the conduct of the interviews. The transcribed interviews were saved as separate word-files with names that preserved the anonymity of the informants in alignment with the consent form.

As the interviews were conducted through Skype, it occurred situations where the audio was of poor quality due to IT related issues, which implies that some words from the audio recordings are misconstrued. In cases where it has been uncertainty about which words are pronounced or not possible to understand because of technical challenges, such words were marked as unclear in the transcript. However, this only implies a few words, meaning that these cases have not had any ripple effect on the understanding of sentences as a whole, as the overall audio was of good quality.

3.3.2 Coding and Analysis

The analysis of the data performed in this study is an approach to thematic analysis. According to Saunders et al. (2016) a thematic analysis is a generic method for analysing qualitative data, and is suited for a combination of deductive and inductive research approach, as thematic analysis allows to move between these approaches. The essence of this method is to search for themes or patterns by coding a qualitative data set. The six-phase framework by Braun and Clarke (2006) was approached when analysing data; 1) become familiar with the data, 2) generate initial codes, 3) search for themes, 4) review themes, 5) define themes, and 6) write-up.

After transcribing all the interviews, the transcriptions were printed out in two copies. The 11 interviews were read twice by both of us in order to get an overview of the data beyond the thoughts already established during the interviews and transcription. After getting an overall impression of the transcribed data, initial ideas about codes were discussed, which enabled us to develop some preliminary ideas about the codes, in addition to the predetermined codes derived from the theory in line with the abductive research approach. In qualitative studies, a code is a word or short phrase that symbolically assigns a summary, captures an essence, or is representative for an evocative portion of language-based or visual data (Saldaña, 2013). Further, each of us coded separately through the use of Microsoft Excel. The text coded for this research, was segments of text that intended to be relevant in order to address the research question. After the coding of the text was completed, the codes were compared, discussed and modified where needed.

With defined codes in place, the next step in the coding process was to group the data into categories. A theme or category is a pattern that captures interesting and significant aspects about the research question (Maguire & Delahunt, 2017). In this case the codes were examined, and the codes that fitted together were organized into a category. The different categories developed were marked with colors in the Excel-document, in order to look for trends. The categories were further organized into broader categories that provided exploratory insights to the research question. Throughout the process of regrouping categories, three broad categories were discovered; *Agile Ways of Working*, *Enablers* and *Strategic Agility*. Identifying these categories made us examine the initial codes once more, in order to determine clearly which category each fit into, and not to overlook important connections. In the end-point of the analysis, the essence of each category were identified, and conclusions were made for each main category, including election of connecting and illustrating statements. Table 3 illustrates the coding and analysis process.

<i>Citations</i>	<i>Description</i>	<i>Code</i>	<i>Category</i>	<i>Key Category</i>
"There is no one actually that does Scrum or Kanban. Everybody actually does a mix of everything. That is what you call "Scrumban" today."	Everyone does a mix	Scrum/Kanban	Methodologies	Agile Ways of Working
"You need to have a very high degree of trust in those who work for you. You have to believe that everyone in your organization is actually striving to do the best job possible. Believe it or not, not all leaders think it. They often think that as soon as they turn their backs, you just sit down and read VG online."	Trust your employees	Trust	Management	Enablers
"What is absolutely the strongest killer of agile, is if you have such a blame-game culture, where you always have to place responsibility for whether there are delays in deliveries or something like that, to blame each other or hold each other responsible for type of timelines and things like that. So to the extent that you have such a culture where the most important thing for those who work in the company is not to get blame, then you do not come anyway. Then it is completely meaningless."	Kill agile when blaming others	Blaming culture	Learning Culture	Enablers
"A part of agility as I see it, it is about moving decision-making from the top and further down. So the employees and the teams who feel that they get more autonomy to decide solutions and methods by themselves, they will experience that as a major motivation boost."	Move decision-making, autonomy will give motivation	Motivated employees	Engagement	Strategic Agility

Table 3: Illustration of primary data coding and analysis process

3.3.3 Presentation of the Findings

The research findings are presented in section 4. *Findings*. The findings are presented under the three main categories as mentioned above; *Agile Ways of Working*, *Enablers* and *Strategic Agility*, and substantiated and pointed out by using quotes extracted from the interview data. The interviews were conducted in Norwegian, thus all coded quotes had to be translated into English. This was challenging, especially because some words or phrases in Norwegian loose meaning when translated, but the best work possible was put into translating precisely. The quotes are written in cursive, and due to anonymity considerations, the source of the statement is not listed. If only parts of the quote is used, omitted words or phrases are marked with the symbol [...]. In statements where further explanation was needed, this was marked with [explanation]. In order to safeguard confidentiality and anonymity, information that may contribute to identifying a person or a company is removed. Thus, in occasions where the informants have referred to a company, the names were replaced with [Established Firm X]. The findings are further discussed in the view of existing theory in section 5. *Discussion*.

3.4 Research Quality

In this subsection, the research quality of this study is addressed. When evaluating the quality of the research, the key metrics of *reliability* and *validity* are most often applied (Saunders et

al., 2016). However, these measures are fundamental concerns for the quantitative research, and some researchers argue that they are less appropriate for qualitative research (Pandey & Patnaik, 2014; Sinkovics, Penz & Ghauri, 2008).

Lincoln and Guba (1985) propose establishing and ensuring trustworthiness in qualitative research through the criterias of *credibility*, *transferability*, *dependability* and *confirmability* (Nowell, Norris, White & Moules, 2017; Pandey & Patnaik, 2014, Sinkovics et al., 2008). These four concepts of *trustworthiness* are corresponding to key measures of validity and reliability (Nowell et al., 2017), but are considered to be more appropriate for qualitative research such as this study where interview-based data was collected (Sinkovics et al., 2008). In the work of Lincoln and Guba (1985) credibility is parallel to internal validity, transferability is parallel to external validity and dependability is parallel to reliability, while confirmability is replaced by objectivity (Saunders et al., 2016; Sinkovics et al., 2008). The four criterias suggested by Lincoln and Guba (1985) are found to be most applicable in this study, and were used when addressing the quality of this research.

3.4.1 Credibility

Credibility is the most important criteria in establishing trustworthiness (Lincoln & Guba, 1985). Credibility addresses the fit between the informants' views and the views presented by the researcher (Tobin & Begley, 2004 in Nowell et al., 2017; Sinkovics et al., 2008). To evaluate this study, several techniques for ensuring credibility were used. First, member validation was performed. The nature of this research allowed for a more open interview process, where words and questions that were not fully understood by informants could be reworded and asked again in order to avoid any misunderstandings, and to fully extract the meaning of what informants were answering.

The second technique used to ensure credibility was triangulation, which is used to address rich, robust, comprehensive and well developed data (Pandey & Patnaik, 2014). Triangulation can further be divided in different types. The technique of triangulation involves using multiple sources in order to produce a better understanding (Merriam 1995 in Pandey & Patnaik, 2014). In this study, *triangulation of sources* was applied when combining primary data collected through interviews, with secondary data from the Consulting Firm, and external data from an established firm. This method secured to some extent that the interview data was interpreted

correctly. Further, the sample of primary data collection consisted of people with different background and varying experience in working with agile transformation in established firms. This provided multiple perspectives in the collected data, and when data was coded and analysed, it was ensured that a category or theme was only accepted if multiple informants provided that kind of information. Last, *perspective triangulation* was also applied in this study (Denzin, 1978; Patton, 1999 in Pandey & Patnaik, 2014). A variety of literature was reviewed and discussed in order to interpret and apply explanations.

The last technique applied was peer debrief. To strengthen credibility of this study, face-to-face meetings in the beginning of the process were taken place, and later in the process email and video was used due to the Covid-19 pandemic. Additionally, a dialog with another FOCUS participant doing research within the same topic was maintained throughout the whole process of this study. Discussion with both the supervisor and the FOCUS participant were valuable and helped to develop a deep understanding, both before the data collected and after.

3.4.2 Transferability

Transferability refers to how generalisable the findings are to another setting (Sinkovics et al, 2008). As this research is exploratory in nature, and constitutes a real-life setting, the findings are specific for this context and thus applicable for a particular setting or environment, rather than applied to a wider population (Pandey & Patnaik, 2014). According to Guba (1981) the aim of qualitative research is not to be representative, but to *maximize the range of information uncovered*. The information in qualitative research should therefore be sufficient, in order for the reader to take independent decisions regarding the applicability of the findings.

The informants were elected for the study by the key contact through strategic selection, ensuring that the informants had relevant expertise, and were familiar with agile ways of working. *Thick description technique* is described by Lincoln and Guba (1985) as a source to transferability, assuming that after a phenomenon is described in sufficient detail, it is possible to evaluate the degree to which the conclusions drawn are transferable to other contexts (Pandey & Patnaik, 2014). The case company is presented in *Context*, while the expertise and background of the informants are described in *Sample*. This provides context for other researchers, guiding the researchers to compare information with respect to the extent of transfer to other contexts.

3.4.3 Dependability

Dependability considers the stability of the results over time (Sinkovics et al., 2008). In order to make sure dependability of qualitative data, collected data through interviews were first recorded and later transcribed. All parts of the process were documented and presented in a logical manner, in order for the reader to examine the process of how data was collected and analyzed (Guba, 1981; Sinkovics, 2008). In addition, dependability is further taken into account through discussions with the supervisor of this study. According to Merriam (1995 in Padney & Patnaik, 2014), research enhances the dependability when receiving important feedback from an expert, in a process of *audit trial*. In this case, the supervisor provided critical feedback throughout the study, to make sure the theoretical assumptions were proper.

3.4.4 Confirmability

Confirmability concerns that the researcher demonstrates that the findings are the result of the informants' ideas, rather than rooted in researcher's own imagination (Pandey & Patnaik, 2014; Sinkovics et al., 2008). To ensure objectivity, the research design was followed carefully. Personal attitudes and opinions were put aside to make certain that no bias was prominent, that could potentially lead to weakened confirmability. Thus, help was received from the supervisor of this study when developing the interview guide, and further advice was given regarding findings and discussion. In addition, the findings were supported by quotes from the informants.

The consent form (shown in *Appendix B*) drafted by FOCUS research program, was signed by all informants before the interviews were conducted, which minimized the risk of the opportunity of the withhold of information, and provided some trust between informants and researchers in this study. However, interviews were conducted through Skype, and according to British Psychology Society (2013 in Saunders et al., 2016) internet-mediated research makes it difficult to anticipate informants' concerns and attitudes due to lack of face-to-face contact. This might have impact on the lack of trust because of the absence of the physical attendance, but as stated, face-to-face interviews were not possible due to emergence of early stages of Covid-19 pandemic and its restrictions implying social distance. However, it is reasonable to claim that informants appeared to be more relaxed as they were at home in a secure environment, and the interview setting was less formal, which is believed to provide more trust and open

information sharing. Additionally, during the interviews, the informants several times mentioned that they trust that all information about company names mentioned will be anonymized, and it was confirmed every time such concerns appeared. Through such confirmations, it was experienced that informants were willing to share information without withholding it.

3.5 Research Ethics

In a research context, ethics represent the standards of behaviour that guide conduct in relation to the rights of those who are affected by, or become the subject of this research (Saunders et al., 2016). Throughout the research process, research ethics were considered as they can have a significant impact on research quality (Saunders et al., 2016). This research is done through participation in the FOCUS RaCE research project at NHH, and has been reported to the Norwegian Social Science Data Service (NSD) in order to guarantee that all standards of the ethical considerations were complied. All the informants were given information about the research project in advance, and it was assured to obtain each informant's signed consent form in prior to the interviews. The informants had the option to withdraw their participation at any point in the process. Further, the informants in this research are protected, as the data has been anonymized and stored on personal password-protected computers. Physical prints of the transcribed interviews were kept in a locked cabinet when not used. To guarantee the informant's right to privacy, confidentiality and anonymity, all data implicating personal information is either replaced with a pseudonym or removed completely. After this study is completed and submitted, it will be ensured that all data is deleted from the personal computers used during the research and delivered to the FOCUS program.

By being representatives of the FOCUS program at NHH, it has been important to be aware of the behavior towards the case company and the employees. It was strived for a professional, attentive and honest attitude, and awareness of clearly communicating the purpose of the research and the importance of their participation to the research project.

4. FINDINGS

This section presents the findings generated from the analysis of the collected data. The findings are organized and presented with the interpretations and illustrative quotes from the interviews. All of the findings are supported by quotes from multiple respondents. The summary of key findings and a model are presented first to create a clear overview of the analysis, then the detailed findings are explained.

4.1 Key Findings

Based on the analysis of the interview data it appears that the established firms aim to respond to the dynamic environment by changing and innovating faster. This calls for implementing agile organizational structures of teams, and processes approaching agile methodologies, as the first step towards becoming an agile organization. While agility can be practiced isolated within team level in an established firm, higher level of agility requires more than autonomous teams and agile methodologies. For established firms to become agile at strategic level, management is an important enabler. Through its agile mindset, management can give up control and set direction, by building deep trust and allowing employees to find the best way to complete a task, which is crucial for the success of an agile transformation. Additionally, learning culture is another important enabler, as agility at strategic level requires a culture where daring to experiment and learn from it are accepted and crucial actions in agile behavior. The main outcomes of agile ways of working enabled by management and culture are: flexibility, increased speed, customer orientation, and engagement among employees and management. Together these outcomes facilitate incremental innovation, while radical innovations requires other mechanisms in addition to agile ways of working.

4.2 Model

The model developed illustrates the main findings in a structured and chronological way, and provides the reader with a clear overview and visualization of the data, key themes and relationships. Further, the presented model aim to provide an answer to the research question: *How can established firms adapt and renew their strategic direction through agile ways of working?*

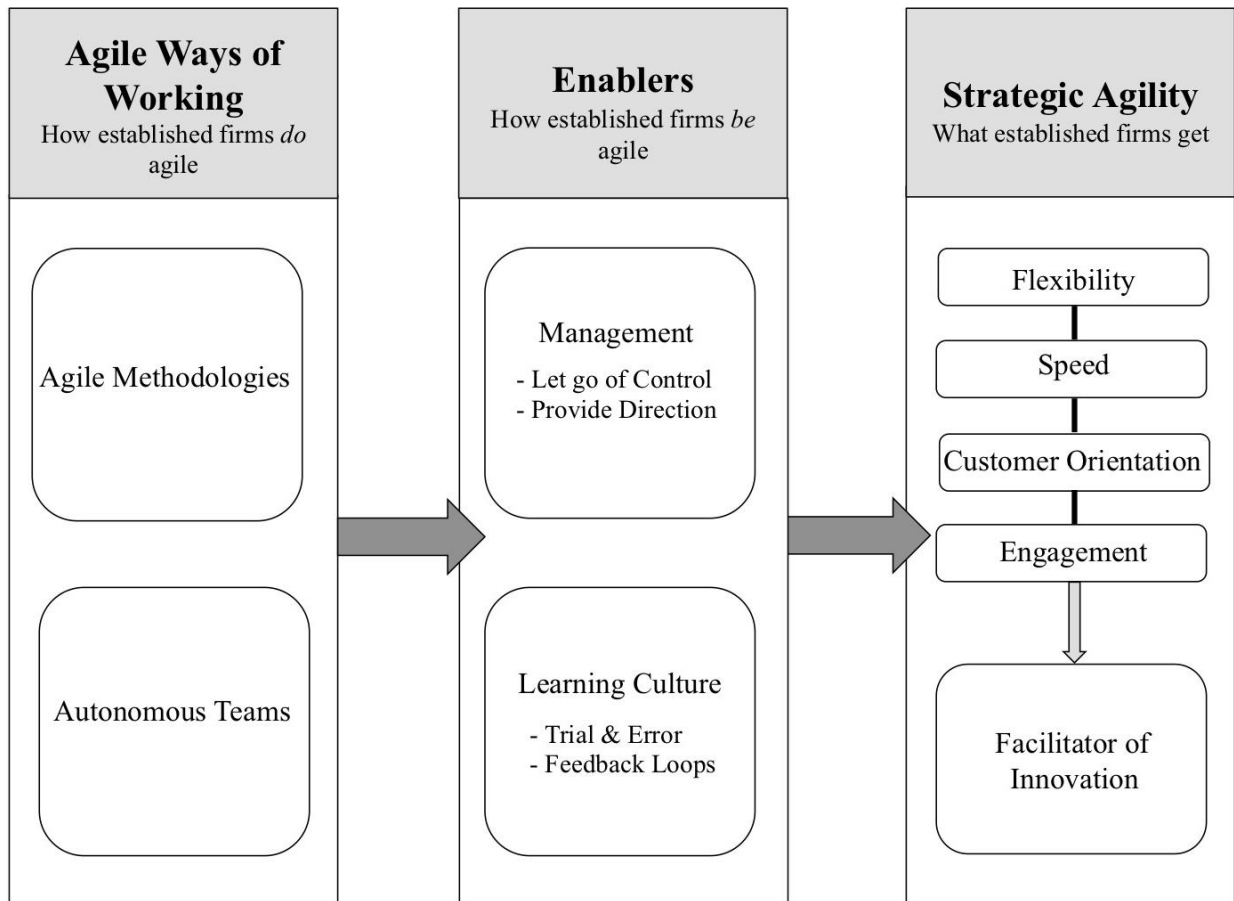


Figure 4: Model of the analysis and findings

4.3 Agile Ways of Working

During the data collection and the analysis, it became apparent that there were conditions within the organizational environment that fostered agile ways of working in established firms, and stimulated their pursuit of the strategic agility. Agile ways of working that form the basis of agile organizations, are outlined first to give better context for how strategic agility can be achieved in established firms. Further, when analyzed why agility is needed in established firms, the next step was to understand how agility can be approached, thus agile methodologies and autonomous teams are presented.

4.3.1 Drivers of Agility

When asked what the main purpose of established firms is when aiming for agility, the majority of the informants stressed the fact that today's organizational environment is characterized by increased speed of changes and uncertainty, which constitutes the main driver of agility:

dynamic environment. The organizational environment has changed from stable, where firms could exist in many years, to a very dynamic and uncertain environment, where firms are only able to survive for some years. Established firms seek to maintain relevance through adjusting the direction of business models in order to grasp opportunities or deal with the challenges. Thus, there is a need for better adaptation towards the external environment when stability is not an option anymore.

It's really about adaptability, to adapt to market changes and changes in the environment. [...] It's about adapting to the environment that the business is in. And it can be both things that you have to change because you have an existing business and just have to adapt it, but there can also be new opportunities where there is a niche somewhere, which can be exploited. [...] It's about the stability of the surroundings. So to the extent that something is very, very stable, then you can avoid using agile methods. To the extent that something becomes less stable, the need for agile solutions will be greater.

Dynamic environment leads to external organizational challenges related to fear of existence and survival of the established firm. When established firms observe what their competitors are doing, they may experience fear of competitors being ahead of them. Thus, they are afraid of losing market shares or being outperformed by new potential competitors.

I think there is fear for sure. People see competitors starting to do it, and it can be a wake-up call. Especially if they start to see that stock prices and customer bases are falling and... that they [competitors] are able to turn around faster.

I also think that they must have this reason to do so [become agile]. It must be something that most people in the company, at least management understand the necessity of it. So-called burning platform or loss of market shares, changes in regulations, opening for competition where they have not had competition before.

In the dynamic environment, customer focus has become even more important due to higher customer expectations. Thus, for established firms to be able to deliver value according to customer needs, it requires speed, flexibility and innovation.

Another reason may be getting closer to the market, and being able to achieve a right pace of innovation, and somehow knowing what users are looking for, and being able to adjust quickly.

They definitely want to be able to deliver quickly in short time. To be able... just get things out fast in the market. But then I think they experience very high expectations from most likely both suppliers and customers [laughter] and employees.

When established firms respond to the fast changing environment with traditional ways of working, they may not achieve the desired outcomes. Established firms might find that the way they are organized and work becomes an internal organizational challenge, which trigger the need for agile ways of working.

It all comes from having challenges in the way they are organized in, working today.

They see that they have different symptoms; may be they have too much to do, that they may not properly prioritize tasks, they do not have time to focus, it may be that they do not think development is going fast enough, that things are not getting out fast enough. Maybe they invest money in solutions that are not actually being used [by customers].

In a market where things happen so quickly, changing the way of working is pointed out to be absolutely necessary to survive, which makes agility an important solution when operating in a dynamic environment.

So to be innovative, to be able to turn around quickly, and then I mean to change totally, because the market for what you had may just be gone. And then you can choose to succeed or you have to do something completely different, and more and more companies will notice it. [...] You just have to turn your organization around and what you did three years ago, you no longer do that, you do something now completely different, but if you have good people, competent people, great management, and then you can manage to turn around a company and do something completely different. But it requires that you are what we today call agile.

Additionally, some informants point that the drive for agility might not be only about getting things done faster, but rather following what is trending.

There is a desire to work that way because there are good examples of organizations working that way. But it is not always the case that there is just as much willingness to follow it up, or actually rig up that way [by established firms].

Some established firms are doing news-driven development, meaning they want to make headlines.

4.3.2 Comparison of Agile and Traditional ways of working

To understand why agility is a solution to the opportunities and threats posed by dynamic environments, for the context of this research, it was important to understand the difference between the traditional ways of working and the agile approach. Informants pointed to the traditional waterfall model, where the products are planned in detail a long time in advance.

In the beginning, a lot of time was spent on planning the product, what value it should give and how it should be built. And then you built it step-by-step until you finally had a finished product. While now it's much more about not finishing one thing before you start the next, but just doing exactly what you need to get answers to what you're wondering about. So it's a whole different way to work compared to that kind of traditional waterfall method.

In the dynamic environment, the waterfall approach poses a risk, because when the products are finally released, they may be something that customers do not want anymore.

You plan your entire product one or two years before launching. And it does not work in dynamic a environment as we have today. To plan a product now that will be launched in a year and a half, how will that product be, I probably won't manage it. Because we know so little about how things will look like in two years.

Before, you made plans, and then specified exactly what you were going to do, and then developed it over a period of time, tested it, and launched it. It was very long distance between the time when the need for the product arose.

Additionally, the traditional ways of working imply an organizational structure with many different roles and levels, which leads to numbers of handovers of the product in process. The process is described as time-consuming and leading to possible waste of resources.

They are organized more like an assembly line. First there's a team, then they do a little, and then they have a handover to the next team, which can be an individual who does his or her job, and then it goes on like this down the value chain, also called waterfall to work that way. And then it is passed on to someone who is waiting for you again. Then of course if you just have to stop somewhere in this process, and it's like all the resources are just waste, and you get nothing done.

To compare, the agile approach requires a different way of organizing people, who follows the whole process of the product development. It allows for changes and feedback-mechanisms to take place while the process is ongoing, instead of the need of approval for every change that had to be made.

It has gone from being very much such a project or ad-hoc focused to establishing product teams. So, in terms of units being given more responsibility and authority to handle and own the entire delivery, from analysis to delivery, but everything happens inside the team. Instead of the team being fragmented into single resources, where one does something that it hands over to the other. That's the big difference.

You had to spend a lot of time if you were going to make a change. Because it had to be approved and you had to prove why it was better [than the previous solution].

Before, the market was much more forgiving, so you could make some mistakes, or it was room for understanding that it took time to turn around. Today, I think that understanding among the users is very small.

4.3.3 Agile Methodologies

When asked about agile methodologies, there was a wide agreement among informants that neither Scrum or Kanban methodologies were used alone. Established firms often implement specific elements of one or both methodologies in order to adapt it in a best way to the existing organization. Thus, adaptation is needed, and there is no one-size-fits all solution no matter what kind of established firm.

There is no one actually that does Scrum or Kanban. Everybody actually does a mix of everything. That is what you call “Scrumban” today.

You will rarely find two customers who do agile just the same. [...] But usually, in well-functioning agility there will be a lot that is extremely recognizable. So you could say it is based on the same foundation, and have some of the same elements, but how you do it is probably very customized to the people, what products you make, what the organization looked like before.

If you pick hundred different teams in Norway, it would be difficult to say how many of them used Scrum, how many used Kanban, or another methodology. You would find elements of many in all, while obviously none of them use pure Kanban or Scrum. In a well-functioning process, you adapt the process all the time.

It is important to note that there has been a development regarding what methodologies have been in use. Despite that Scrum is still widely used, informants agree that Kanban seems to be the most favorable methodology to adapt as it facilitates flow-based and continuous delivery, which allows getting things out to the customers fast as the environment have become even more dynamic than it was 10-15 years go.

I think a lot of people who want to start with this, like Scrum [ehm] because it is a bit straightforward to use. There are some rules, while Kanban is very much, it is much more loose [laughter]. In Scrum there are some roles for example, there are some meetings, and there are some, you have interactions and there is a bit like that... it is a little structure to it. [...] But what we often observe is that people start there, and then they pass further into Kanban and that kind of thing, where it is more flow-based.

Because as you get experience with this, then you see that splitting things up, even it is just two weeks intervals, so we are like, ok, why this? Why wait two weeks just that all thing to be done? There is no reason for that. So getting a lot more Kanban and continuous deliveries, getting things out in the production as one little thing is done is where people are now and to greater extent choose.

Where I am now, I am working very hard to get from Scrum to Kanban, and much more flow-based and more in a way more frequent planning and that you can constantly prioritize, that you do not spend a lot of time planning in three week sprints.

Considering a time perspective, there is shown to be new methodologies evolving and replacing the existing methodologies. This is simply meaning a shift to which methodology being most trendy to use.

If we go back in time, there were other methodologies [...] that Scrum replaced. Actually, I will say it is 5-10 years in between new methods emerging.

When considering the development of agile methodologies, during the discussion, some statements from informants point to that Scrum is outdated, but still favoured by established firms that are immature from the perspective of agility.

Scrum as a framework is ok enough, but it is also outdated in relation to modern ways to work agile.

In Consulting Firm, I think no one use Scrum. Really not. There is what people did long time ago. But I see that a big part of clients use Scrum. They do it on purpose, because they think it is a practical way to work. [...] It actually delays things when using Scrum. Because then you wait with delivering things until the sprint is finished. But it is a very easy and good way to organize in.

While agile methodologies Scrum and Kanban are mentioned and commented on by all informants, there is noteworthy to understand that not all established firms associate their agile

ways of working to any specific methodology. However, some elements may still be the same. Thus, in the next subsection, the findings related to autonomous teams are presented.

4.3.4 Autonomous Teams

The first step towards strategic agility taken by established firms, is to implement agile structures and processes. The findings reveal that autonomous teams are the basic building block of agility, which calls for changes in the structure and processes of the established firms.

It is about setting up some teams to work. That is perhaps the first practical thing you need to get started with, and then teams who have autonomy to solve one or another problem.

Often it starts with implementing agile isolated in one single team. That requires that the teams get sufficient freedom to do it. And they must have the right internal driver in the teams. It is actually not that super difficult to get a well-functioning team that is agile within a traditional organization.

Agile teams must not only be autonomous, but also consist of cross-functionality, where people with different skills are working on a specific product from the start to the end.

Cross-functional teams where you have people from the business side, from the market side, you have system developers, you have designers. And it's not that one should be part of the projects just for a while. Everyone should be there from A to Z.

When we are going to develop a solution or a product for a customer, then we put together everything they need in that team: designers, developers, testers - everything they need in that team to be able to own that project, from analysis to delivery.

The structure of the teams depends on the type of team. Product teams are characterized by stability in order to be able to develop expertise on that one specific area or product. Individuals can still be moved between teams or placed in newly created teams if needed, but as few as possible at one time. While project teams are more dynamic and vary in duration.

The customer I am working with now, where we are trying to establish product teams that will be fixed for various projects. A transition from project organization to product organization. Most commonly, teams are organized around systems and subject areas, with temporary project teams assembled when needed.

Following, the process of how the teams are composed, is to some extent complex. In general teams can report on a need within their team, or individuals in the organization can report their interest for a specific role in a team. Team composition is about matching needs, competence and wishes.

Team composition is a mix of management, HR managers, the teams that get / lose the person, and of course the individuals.

Who select team members can also depend on the type of team. Top-management, depending on the size of the established firm, can be involved in putting together a product team, while project teams can be constructed by a project owner. The process of how and who can construct teams is often specified in the project mandate, while self-organized teams can make own independent decisions.

There are teams that are pretty much self-organized, and those established firms who are most agile, are probably moving into that direction.

Teams decide and delegate the tasks internally mainly through the usage of a backlog and priority boards. It is common that a central person who has a role as product owner or team leader delegate the tasks. It may also vary from team to team as in some teams a decision of what has to be done is dependent on multiple roles such as product owner, business analyst, UX-designer, technical leader and architects. However, prioritization and delegation of tasks require autonomy, and the higher autonomy a team has, the more it is able to decide.

The teams work from a backlog, where they prioritize what should be done first. Backlog consists of many tasks to solve a larger task.

Usually, you look at tasks/problems that are needed to be solved together in the team and then find out who does what. Typically a slightly larger review of a priority board on Mondays where you talk about what is prioritized and where you stand in completion of what you are doing. In well-functioning teams, the members themselves take the initiative in what matters they pick up and who they need to bring with them.

A widespread variant is that someone has the role of "product owner" and responsibility for gathering all different considerations and anchoring priorities before entering the team priority board.

Top-management is usually not involved in delegating the tasks for teams, as they rather focus on setting strategic direction or goals for the organization. However, in some cases management can suggest what teams should do or *order* a solution. In that way they influence the teams directly on what task should be prioritized. Thus, these teams do not have high level of autonomy.

In very rare cases that a customer's top management is so down to the details that they decide the tasks [for the teams]. They may have opinions or "order" deliveries.

Agility at team level is a fundamental step when beginning the journey of agile transformation, but in order to take advantage of it and become agile at a higher level, it is important that the entire organization is involved. Thus, there are more mechanisms needed to enable strategic agility.

In order to be properly agile, a holistic approach is required, and then everyone must be involved. You can achieve agile teams and things like that without the company being agile, but then you will never be able to reach the full potential anyway.

One thing is to know theoretically what you need to do, but being agile requires that everyone is on board with that way of working.

4.4 Enablers

The findings reveal that autonomous teams adopting agile methodologies are not sufficient to become agile. There has been a clear consensus among the informants that there are two major facilitators for established firms to become successful with strategic agility; management with right mindset, and culture where change, trying and failing are widely accepted. Both management and culture work as enablers for an established firm to be able to achieve strategic agility, and when not present, the enablers can pose challenges, and thus prevent established firms from achieving strategic agility.

4.4.1 Management

During the interviews, management was mentioned frequently and was referred to as a prerequisite for agility to take place in the organization. The majority of the informants stressed the importance of how management and its mindset are playing a key role, and may pose a challenge when established firms aim to become agile. The findings reveal that there are certain characteristics and ways of acting of the management that are needed to enable strategic agility.

The most important thing is mentality and the idea that we [management] are change-oriented. We must to be change-oriented, we must be flexible and open to new initiatives. That is the most important thing. Mindset is the most important thing.

And if the management is not on board, then you will not be able to make changes, because it is ultimately those who stand in the way of good initiatives if they want to block them. And there are those who are responsible for pulling the culture in the right direction as well. There are also those who sit on the money bag and can say yes to spending time on things.

You definitely need ownership at the management level [...], but if you really want to get something done, then you need to get anchored this at the top level. Otherwise it will be that you are agile in a small IT department or something like that, and it can have some positive effects, but if you aim to become agile at higher level, you definitely need the management, that they fight for it. A good example is Established Firm 1. Where the former IT director, he stood in the front and said he will change the whole

Established Firm 1 to become agile. And then things happen [laughter]. So this is the primary step.

Control

A key managerial characteristic of traditional management highlighted by the informants, is traditional management' focus on control and reporting. It is essential that management let go of the control mechanisms they are used to have, in order for teams to be able embrace their autonomy.

They [management] have to let go of the control they are used to have. They have to give more responsibility to those who deliver. [...] It is important. It is very important, because if not, you [teams] will be stuck with reporting on what you deliver.

So if the management always asks questions about progress, about deliveries, about typical such traditional project management questions. If you [teams] are forced to answer them, [...] then we do what it takes to answer the questions, and then we have to kill [agile].

In order for managers to let go of their control in every aspect of their operations, they must be willing to trust their employees and give the teams autonomy to make own decisions. Teams must be allowed to take responsibility for their own tasks, and managers have to believe they are doing their best job and making the right decisions.

You need to have a very high degree of trust in those who work for you. You have to believe that everyone in your organization is actually striving to do the best job possible. Believe it or not, not all leaders think it. They [management] often think that as soon as they turn their backs, you just sit down and read VG online.

It is to trust your employees, empower them and the teams. Take responsibility and send it down [to the teams].

It's very much about placing trust and responsibility out there [in the teams]. And if you have an old-fashioned control organization with reporting, and managers who in practice make the most decisions, and so it is in a lot of places. That is probably what is needed to be resolved to become agile, not just sprinkle lots of Scrum over the teams.

By not striving for control, managers are able to devote time and focus on aspects that are more value-adding to the firm at strategic level. While teams can make independent decisions when getting responsibility.

We start with the top management and build this idea that you can delegate responsibilities down, and then you can trust your team that they complete, and then you do not have to dwell on the details. This allows you to free up time to focus on something more value-adding than following up status for example.

You will always be limited by time, and if you choose to spend that time following up details and getting status, and stealing time from those [teams] who have to create the status for you. If that's the most important thing in your everyday life, then you don't have much time left to figure out which direction you want your organization to move.

Moving decision-making from the top and further down in the firm in order for different teams to have more autonomy in making decisions without them needed to go up to the management, and then back again. That takes too much time.

Autonomous teams and shorter decision paths do not mean that management should not be involved in the learning loops, and an alignment with teams is still needed to adjust the strategic direction towards the right course. There must be communication through a dialog between the teams and the management that enables making strategic decisions with better quality. Teams are working closest to the end-customers, and are able to provide management with valuable input about the market which is in constant change.

In most organizations, agility is applied in only teams. When done this way, there is no automaticity that the learning from the customers and the insights gathered at the team

level go up to the strategic level. [...] it often becomes a misalignment between the learning that appear in the teams and the strategic decisions made in the company.

If they [management] are able to catch the signals from teams that understand what is going on out there, it will be an useful input in strategic process and assessment.

Given that they are connected to the initiatives that are ongoing, they have a completely different opportunity to acquire the basis for decision-making. Then we are back to building, measuring things and learn from it - get those loops started, and that management is connected to those at an aggregate level.

To facilitate communication, management must devote time and show trust to the teams. Teams should feel that there is room for proposals, and that they are able to influence the management. This requires that management facilitates a specific organizational culture, which will be highlighted with the subsection of culture.

Direction

Additionally, informants agree that management must set a direction and give support, rather than instructing orders to the teams. Then it is the team's responsibility to figure out the best way to work towards that direction.

It requires a different management [laughter] to operate such everyday life. [...] A classic example of what an old school management is: “We have to cross this river, you have to build a bridge”. While more modern [agile] management is like this: “We have to cross that river, figure out the best way to do it”. [...] It is fundamental change in leadership. On one side you think you are best at instructing what people should do, on the other knowing that the people below you [teams] probably know much better how this should be solved, and you just have to give them room to unfold. And it can be difficult for many top-managers.

Being able to set a direction, clear guidelines to the teams, a direction on where to go, be able to give responsibility to these teams so that they manage to solve it themselves, find the best possible solution to it, so that you do not need to micromanage on how

things are resolved. To handover responsibility to the teams, but at the same time be close to them. [...] You must continue to be close to the teams, maybe more coaching, than telling them how to solve things.

Management, given that they have the right mindset, can also influence employees in the right direction, by creating an open and secure organizational environment. When acting as agile coaches, management can enable an established firm's culture to align with the agile practices.

It's about mentality, willingness and how you are able to motivate the organization, and make speedy changes. So it is that you have to create security. You have to focus on the security aspect, because changes often imply insecurity, in the sense that people know what we have, but are unsure about what we get here.

You need management to support and help when they [employees] are struggling with something. You do not need them to operate with command and control type of management.

The one place I have seen where it has been done successfully at organizational level, it has been that you focus on the cultural part [...]. Very high level of openness and informational flow, management who are transitioning from being traditional bosses to becoming more coaches.

It is important to note that managers from established firms are often unwilling to change their mindset and have difficulties when giving up control. Being a manager that acts as a coach in its own organization can be a challenging role to take for those who have been used to work in the same way for many years. In order for managers to work as enablers for strategic agility, management need to overcome the above presented challenges.

And then there will be some middle managers who were responsible for decision-making, who no longer get the same decision-making authority, and they may feel that they are becoming less important. I think that is also a blocker for being able to do it, to some extent. You have established power structures in a company. And as soon as someone feels that their position is being threatened, they completely resist.

4.4.2 Learning Culture

The second important key element enabling strategic agility which arose from the data collection, is related to the culture of the established firms. Informants are positive that culture, like management, is a crucial factor needed when aiming for agility.

Agility often starts with the technical bit. For example, if you implement Scrum, which is flexible methodology, then you do all the things Scrum says you should do, and then many are disappointed, because you do not get the effects you expected. And then it's often because you have failed on the cultural bit, which goes much deeper than what Scrum says you should do [...] the cultural aspect of agile methodology is more important than the practices you say you should do.

Processes, methods, frameworks and ways of working is the easy part. It is very easy to copy and adjust on it. The difficult part is to change the mindset and culture, and values.

When asked about the prerequisites for achieving higher level of agility in established firms, a specific type of culture was highlighted: culture of learning. By having a culture where it is accepted to try and fail, because then you can learn from it, can help an established firm to experiment and then explore new innovations.

What is absolutely the strongest killer of agile, is if you have such a blame-game culture, where you always have to place responsibility for whether there are delays in deliveries or something like that, to blame each other or hold each other responsible for type of timelines and things like that. So to the extent that you have such a culture where the most important thing for those who work in the company is not to get blame, then you do not come anyway. Then it is completely meaningless.

It is like if you fail and go for an initiative, and then use a few million dollars, which turns out to be wrong, and you get a pat on the shoulder, and then we put it behind us, and you go on... If you get blamed, and fired and salary reduction, and all that, then you never get an innovative organization.

Whether you have a culture of exploration, interaction, trying and failing, and at least learning. Is it a culture where you dare say "let's try something", or is it a culture where there is someone who claims they know the best. If there are people high in the system who have the position because they know the best, then you have a huge problem.

Established firms which allow employees to take initiatives and try new things, do not see the possible failure as losing money, rather they think of it as an investment in continuous learning. Continuously, when establishing and developing an initial culture of learning in established firms, it requires that feedback loops are implemented into the learning process. Learning is not a process which has an end. The main point is to learn and change continuously in order to create new improvements.

You have an external and an internal dimension. It is getting to know your users or customers. The other is also learning from the way you do this internally within the company. Because you can do it in a way and then "Oh, it doesn't work so well, let's try a little different way", and then it works a little better, and then it works a little better, so is like continuous learning about how to organize yourself too, and how your team works or your business. And then... but it requires quite frequent feedback, if not you may work in a wrong direction for a long time, you need to have a foot on the ground and think a little about what you have learned. Based on what we have learned, we can do things better. So continuous learning is one of the main pillars of agile working.

Perhaps one of the most important things about agile is continuous learning, and what you call feedback loops in the process. You do some things, and then you let what you learned control how to do the same thing next time. If you do not have feedback cycles or learning built into the process at all, then it is definitely an obstacle to succeed with agile.

Informants stressed the fact that a culture aligned with agile practices is difficult to achieve, because of resistance to change is present in most established firms. Resistance to change is pointed out as an important barrier which must be overcome to enable agility.

When you have a very established culture or way of working within an organization, and then you introduce new processes or new ways of working that can break very much with what is inherent culture, so it is very difficult to implement change.

If Established Firm 2 is going to fundamentally change the way of working for all employees, then there will be extremely many who need to internalize a whole new way of thinking, which may be in violation of what they have done for 5, 10, 20, 30 years. So I think that is difficult. The places I've been and done that, then we see some people do it, but if you really want to transform an entire organization that way, then it probably means that some of the people who have been creating the old regime, really should not be included in the new.

People within an established firm must understand that change is necessary, and that there is a need for change in the way they work. Thus, security and openness within an established firm emerge as important aspects to be present when a change process is ongoing. To facilitate change, management has a key role, and they need the ability to motivate the employees through the transition. This is supported in the subsection regarding the characteristics of the management. Additionally, time and step-by-step process is suggested to enable established firms' culture in order to accept agility.

It worked because we did small things over a long period of time. Took small steps. We were there for... I think we were there for 6 years, and there were kind of small changes all the time, where the client didn't really know they were in a transformation, they just knew that we were going to make something better. We should try to improve gradually and it is much easier to do it... except for the time aspect, it is much easier to do it over a long period of time, because then you have the confidence that is built up along the way. You better understand the culture and you understand much better people, and you kind of understand the products and what they make, and then you improve things all the time.

[about obstacles] It is ultimately the people, but I think if you sit together and work together, there will always be a better result, but it can also be challenges about it too. Especially, different types of roles often have different mindsets. A developer and a

designer will always have some conflicts on what they should prioritize. But I think, how to get used to work together and know what conflicts there are, then it will eventually get better.

Because changing the culture in established firms is challenging, carrying out external agile coaches in the organization that have been through change processes before and know how it works, can help the established firm to surpass certain obstacles related to culture. If external competence is used, it is important that those people understand the culture of the established firm, if not they can experience high friction and be unable to build changes into the culture.

4.5 Strategic Agility

By approaching agile methodologies in a structure of teams and enabling strategic level of agility through agile management and development of learning culture, established firms are able to increase efficiency in organizational operations, and respond to changing environments through achievement of specific types of outcomes, which in turn foster innovation. The main outcomes of successful agile transformation are realization of flexibility, increased speed, customer orientation, engagement, as well as facilitation of innovation. Our findings show that these outcomes are difficult to achieve with traditional methods, but it is unclear if they could have been achieved through other ways of working. It is likely that these outcomes are altogether unique to the agility.

4.5.1 Flexibility

The outcome of flexibility can be described as an ability to respond to the dynamic environment by prioritizing what is most important, allocating resources where they are needed the most, and changing direction fast. Flexibility is primarily achieved through the agile organizational structures and processes enabled by agile management and culture. When a new opportunity is discovered, when there is a need for improvements, or when there is a problem, established firms can easily adjust to the situation through its flexible structure and processes.

“Where is it that we need to work on now? Yes, now we are going to do something in that area, yes, who should join it, yes, it is he and she and he and he. Ok, then we just create a new team that handles that part.” And then you have another team that is starting to finish what they are working on, and then they have to join other teams. It is

a very dynamic organization then, so you don't find department A, B, C and D. You only find teams A, B, C and D, and they are constantly changing, and they can turn around so quickly [clapping hands - making a sound to signal how fast it is done]. And then let's say some weird things are happening in the market, it can come a virus or something like that, and then they may have to think completely different. And then they can just turn around very fast.

Flexible organizational structure of teams allows creating temporary teams without significant changes to organizational structure. Prioritizing new projects, and allocating resources where they are needed the most, enable adjustments of strategic direction when an opportunity arises.

It was the year we got so many asylum seekers in Norway. And then I worked for Established Firm 3. Authorities were going to distribute money to municipalities [...]. And that was a solution which was needed very quickly. And then we put together teams of 10 or 10-12 at the Established Firm 3 who worked with other tasks at that moment, but they were so agile that we could take people from these different projects, and it was not that something stopped. The solutions they worked on were ongoing [...]. Then we could put together a team that in just one week built on that solution to create something that worked just for that specific case. And that was it, it was because we were so agile, and because we had this continuous delivery, and we quickly could somehow slip at what we were doing without having any consequences. And then we developed it, and went back to the original teams again. It's quite such an agile approach then.

They [Established Firm 4] decided that they wanted to try it out - make a streaming solution that was going to be ready before the Olympic Games. And it was like three months before or something. And then [pause] there was a need of prioritizing all resources they had and put them on Olympic Games project to make it happen. And that means there are people that are used to work in one way, they must to adjust to new tasks in that period.

When there is sufficient autonomy, teams are in the position to decide how problems can be solved. Following, as teams consist of different roles and expertise needed for that one specific

product or project, they are in a position to find the best solutions towards that problem, without approval from top management, allowing for flexibility.

If organized true agile, you will very quickly be able to turn to that direction, or solve that problem. So one example is these Corona times now, because we have organized ourselves into agile teams already, we will from day to day be able to do the most important thing. [...] So it's about saying "Okay, then we know we have this problem, what can you do in each of your team to solve this problem here?". The team sits down and says "Okay, how is this hitting us? What are the customer's needs? How can we find out about it in the easiest way?", and the team creates the solution itself together with those who have technical insights, and those who have the product insight and those who have the customer insight.

The team we created at the Established Firm 5 actually was agile, quite agile. The team owned pretty much everything from the user interface and very much of the user contact, and decided how the solution should be with quite a lot of confidence, and decided a lot of their own processes.

Informants argue that flexibility is also achieved due to agile processes involving frequent priorities. It allows the teams to make continuous adjustments on projects, to always focus on what the team considers to be the most important based on the resources and funding available.

There have been such weekly prioritization meetings, so the priority is known and what should be done. It is possible to turn around very quickly without major problems to deliver something that may have suddenly become important.

Therefore, by organizing in such way, by having autonomous product teams as an example, and that they work with that type of method, are able to test ideas continuously, makes them in the better position to get rid of bad ideas at early stages. They benefit from it.

You will probably get a much better control of the economy in the sense that you are taking small steps. Let's say you have two competing projects, and then you do a little in one, and then you see, ok where do we now get the most value for doing a little bit

more? Well, it's not in that one project, it is only in the other. Then we stop the first one, and then begin with the other one. Directing the money towards the other project that actually provides value still. [...] you get a much more dynamic way of allocating the money. Instead of these annual budgeting processes where you give a huge bag of money for something, and then people spend that bag of money whether it creates value or not. So here you have [...] a much more resource efficient way to allocate the money, and people for that matter.

Additionally, the outcome of flexibility also makes established firms able to increase their speed when adapting to dynamic environments, thus flexibility is a necessary prerequisite for speed. The increased pace of speed is presented in the following subsection.

4.5.2 Speed

The second outcome that emerges when being agile, is the increased speed which describes how an established firm can make faster decisions and pursue faster product development. Increased speed, in line with flexibility, is achieved through agile organizational structure, and agile processes adopted from agile methodologies are of significant importance for increasing effectiveness. Through autonomy, teams are in a position to make own independent decisions, which allows closer market contact and faster decision-making in organizations. Further, it management is able to change strategic direction faster as there are no long-decision paths in the organization.

If teams are autonomous and they are experiential, they can renew themselves. They are sitting closest to the problems. They are the first to see the challenges, and are in the position to do something about it immediately.

If the company is agile and has good training in being agile, then it means that implementing a decision about a change of direction is done very much faster. You do not need to wait until the next quarter to change the goals.

Furthermore, the structure of cross-functional teams who are involved in the whole process of a project or product development, shortens the time between the conception and release of a product, also referred as *time to market*, because the time-consuming handovers are no longer

needed. Teams, because of their structure containing different roles, are in a position to discuss, share and communicate in order to adjust or improve the products faster.

You see everything from A to Z. And you are involved in a development of a bigger product, and you can influence it. Essentially, I think it is about that you are involved, and you see everything from A to Z, so then you have an ability to change processes fast and change the result fast.

There was not a customer supplier, there were not developers and requirement specifiers, there was everybody in one team together. There was no handover, but everyone was sitting in the same boat and fought against the target, rolled up their sleeves, and went where they were needed. And then we had closer communication, so that the product owner, call it requirement specifier, got also an understanding of the technical side, how much time things take, what could go wrong. They did not spend time on nonsense, they did not spend time on documentation, handover, but they did spend time right all the way.

By pursuing the process of short planning cycles, agile teams through autonomy are able to adjust the products and priorities fast when change is needed. Accordingly, teams can pursue an idea at its simplest form, test it, find out if it is something viable and either proceed with it or reject it. Products can be continuously developed according to market demands through a *minimum-viable-product* (MVP) strategy, where minimal product with sufficient quality is delivered for early feedback, aiming for the resources not to be wasted.

You plan a bit and it can vary how much before you start, and then you start to build. You do a great part of planning while you build, because you build a little bit, and then see how pilot users, market reacts when you get more users. And you adjust the plans all the time, so you do substantially less planning first, but you build your product through this continuous planning that actually never stops.

We can use agile methodology to deliver, for example, in small packages, MVP's. It is impossible [puts pressure on impossible] to know what is really needed, but then you can test a little on the market, and then try out small packages and be able to adjust quickly.

The time it takes to build something into a code and until it is out, we got it down from three months to three days, and then you manage a lot quicker to respond to the things you see. If there are any new features that users want, then you can very quickly build them and get feedback on it, and adjust based on it, instead of taking three months. Then it becomes difficult.

Additionally, through feedback loops built into the agile process, established firms are able to learn immediately after new knowledge and information appears. Hence, by acquiring knowledge established firms are in a position to adapt quickly to changing environment.

Getting more in touch with the market, users, customers, and being able to constantly turn around, and change course as you learn more and more. After all, it is absolutely essential. So, like, time-to-market, being able to respond and change usage patterns or what's right for customers, or users.

By being agile, you come out much quicker with something, and then you get much quicker feedback from the real users of what you've created. And then you can see immediately, "Oh, we have been thinking in the wrong direction", but then you can twist it quite fast.

During the work of this thesis, the crisis of Covid-19 hit the world, and informants pointed out that such unforeseen events are a great example seeing that being agile increases the speed of established firms.

One of the previous projects I had, it was to make Established Firm 1 more continuous delivery-oriented. Those systems I worked on, are the systems which are hit hardest now during the ongoing Corona-crisis. [...] the same systems were hit by offshore-crisis in 2014. Then, they were not agile and continuously delivery-oriented, and did not have the opportunity to turn around fast. Now it is like that you can turn around in one day, and know exactly what to do and start to deliver.

4.5.3 Customer Orientation

The outcome of customer orientation can be described as the ability to bring customers closer to the firm and develop solutions that are in line with what the customers want. Customer orientation is achieved through underlying agile structures and processes enabling established firms to reach out to the customers. Sufficient autonomy and short decisions-making paths, allow to continuously adjust to quickly changing consumer preferences and develop products through detecting customer needs. Having agile processes of short planning cycles and delivering the MVP enables established firms to test the products early in the market and create feedback loop. This enables established firms to learn from the valuable customer insights and their feedback, and thus to be better positioned to be customer-focused.

Related to the Coronavirus, actually [laughter] [...] They [Established firm x] were going to implement something new in order to offer services and products that were Corona-friendly. Then it is just to turn around, and have process on how we are going to, everything from specifying, and hand it to developers, and developers should be able to develop it, and then get it fast. And if you are not agile, then you had not been able to do it, to do it and get it out there in just a few days. And then, if all suddenly changes, you see that the customer does not use it, the customer would rather have easy, what is it called, train compartment and pay extra to disinfect it, then we can quickly act and quickly get it out.

It was the idea that... would it not be cool if I had some purpose for which I could raise money for. [...] It was like, the day after we went out with a solution to this. [...] That was simply what we call a landing page and then we ran a campaign on Facebook [...]. During the first 24 hours we received 5000 inputs on what users could actually intend to raise the money for. And it is very valuable, in terms of how you will actually begin to create the solution. It is a very good example, I think, of how to get this feedback loop very quickly.

By involving customers in the process of what is being developed, it is likely that the product or service will satisfy customers, without wasting resources on creating unnecessary additions, or something which does not add value.

Customers were highly involved with us, and we discussed and planned together. And they decided what was most important and not most important. So it was very concrete what to do, and it was very good for the customer to see all the time that we were making what was demanded, so we got tremendous trust. And they were very happy, because they could say stop when they were satisfied with the solutions. So they stopped the project before they got everything they needed at first, but they were very happy with what they got, and we were also very pleased.

4.5.4 Engagement

The outcome of engagement is related to engagement among employees working in teams as well as among management, and present valuable human resources that established firms can benefit from. The engagement is primarily achieved through autonomy in teams and through enabling of learning culture. Sufficient autonomy and more responsibility given to the teams lead to increased motivation among the team members as they will feel the responsibility of the achievement of a specific goal within the team.

A part of agility as I see it, it is about moving decision-making from the top and further down. So the employees and the teams who feel that they get more autonomy to decide solutions and methods by themselves, they will experience that as a major motivation boost.

We measure it [engagement] in the team weekly. We see that it increases when we get more and more of the methods implemented, and more and more focus on testing hypothesis, and more and more focus on the customer.

Engagement also arises from the feeling of being involved and the opportunity to influence. When working in teams that own the product throughout the whole process, team members feel greater ownership of the products. Being close to the customers and having the flexibility to adjust the products and see the results, make the team members to feel more important. Additionally, working together in teams over time leads to stronger relationship among the team members, which give the feeling of belonging to a group, and leading to collective ownership of the work that is set out to do.

And teams, or the people who sit and produce that code, they appreciate being in a team and own a development task from from end to end, instead of just work on a small part of that code, and then pass it on and do not see the end result.

You are more involved and you can influence. Ultimately, I also think that those who work together, the more they work together, the better the product will be.

It leads to increased ownership among more people. That you understand more what to do and why [...] if teams are allowed to work together over time, then they become good together. Creating team identity, team culture, all that. So you create more and bigger communities.

Further, in agile organizations, where there is a flat organizational structure and a culture where trying and failing is accepted, teams and team members can feel free and safe to explore the creativity and engage in new initiatives in pursuit of new opportunities.

We have a very... bottom-up driven organization actually. Where there is fully allowed to take initiative and follow it. And then it shows that, ok, that does not work that well, or it will be a major success. [...] But 9 of 10 good initiatives in Established Firm 6 for example, they are coming from a single employee that was just sitting one night and found out that would it not be cool to have a code competition.

In addition, it appears in the findings that the management in agile organizations gets more engaged and motivated when the benefits are present, which makes management to get more committed.

I notice a significantly great commitment from the management when they suddenly manage to deliver something fast [...]. They think it is absolutely fantastic, because then they can actually just... all the time they spend planning how time should be, and prioritize between and all that, it is like, they don't have to use that [time].

4.5.5 Innovation

When asked about if established firms can achieve innovation through strategic agility, informants claim that innovation happens frequently in agile organizations. However, careful

review of the findings reveals that only one type of innovation is present: incremental innovation. Customer focus enables established firms to discover and explore opportunities within the existing and new markets for the firm, and thus, improve their products and services through incremental innovations.

The incremental innovation, the little innovation - it occurs of course much more frequently and faster, and much more accurate.

Have a high focus on customer insight, and use customers to develop new solutions. And they use, they use a lot of the input, throughout actually the entire product development process.

That stuff you sit and grapple with all the time, that is the way you discover and get new things out. So I do not think it is kind of like that... we very rarely talk about big steps. [...] it happens like step-by-step. The only difference is that things are going faster now. But I think agility leads to increased degree of innovation after all.

Because agile teams work close to the customers and have engaged employees, they are in a position to discover opportunities for innovation. Thus, established firms can respond to the opportunities as they are flexible and have the ability to implement things quickly. Therefore, outcomes such as flexibility, speed, customer orientation and engagement will function as facilitators of incremental innovation.

The path to test new ideas is very much shorter. If you have a product team or rig that supports agile processes, then you are closer to the market, and it's quicker way from you get some input, until you can actually explore it further. But as it was in that project I'm working on now, and it took three months from you built something until it's out there. You can't innovate that way.

Those who sit in the teams have a greater opportunity to influence the solutions [...], those who sit and have that dialogue with the users, sit and develop the platforms where the users are on. And they also have the opportunity for improvements and thinking, thus getting the feedback from the customers that they then need to think new and

innovative [...] and that the ideas are heard and prioritized as well. I think that it contributes to higher innovation capacity.

It is important to note that although agility makes established firms better equipped to implement innovations, there is no evidence in our data that radical innovations occur in these firms. Agile organizations are in better position to seize radical innovations if discovered compared to traditional managed firms.

Everything is actually rigged just for you to turn around faster. The creativity in the direction of innovation does not automatically come into this, but it can come as a byproduct of people getting more involved, that they become more empowered.

[...] very important facilitator [agility], but in itself it does not make one to be more innovative, there is needed more to it.

In order to discover radical innovations, it is suggested to devote time and resources to cultivate creativity, because exploring while working with daily operations can prevent the development of innovative, radical ideas. Separate explorative units or teams should work actively with innovations in order to achieve radical innovations.

Create an innovation unit in the company that will operate with disruptive innovation.

I think there are a lot of companies struggling with that. The classic exploration/exploitation dilemma. But I think that agile methods can both be in the desire to change and the desire to innovate, and invent new products and services, but to do both at the same time, there are very few managing that in practices, I think.

To actually innovate radically, it requires quite a lot from the company, and you don't usually get it going to do both. And then I think that you get really affected by having worked waterfall (...) There are ways of thinking that are still present, that make you unable to think outside the box to a large enough degree. You see, that those who come up with radical innovations, 9 of 10 times there are startup companies, and not established companies.

5. DISCUSSION

This section presents the discussion of the findings in relation to existing literature. Drawing on the empirical analysis, several findings regarding the research question of *how established firms can adapt and renew their strategic direction through agile ways of working*, were found interesting and are worth highlighting. The findings that support the literature of agile ways of working and strategic agility are outlined, and the most compelling findings providing new insights and clarifying the existing literature, are examined. The discussion is divided in two parts; *Agile Ways of Working* and *Strategic Agility*, in order to provide a clear answer to the research question.

5.1 Agile Ways of Working

The recent literature claims that established firms aim to become agile in order to be able to turn strategic direction and respond faster to changing markets (Žitkienė & Deksnys, 2018; Sherehiy et al., 2007). The findings of this study confirm that there is a need for better adaptation towards the dynamic environment, constituting the main reason behind implementation of agile ways of working. Further, the findings support literature where it is argued that traditional waterfall development becomes an internal challenge when markets begin to change rapidly (Rigby et al., 2016a). The findings highlight that traditional ways of working pose *symptoms* of established firms, such as too slow decision-making due to long decision-making paths, and predetermined products leading to slow product development. This can be risky and unsuitable in a constantly changing environment, where fast adjustments towards unpredictable customer demands are crucial (Rigby et al., 2016a; Dearstyne, 2018).

Further, what is particularly interesting in Abrahamson's (1991) view, is the point towards trends affecting established firms, where firms tend to imitate other firms when facing uncertainty. For established firms operating in dynamic environments, this may indicate that agility is just another trend. This is in accordance to the findings revealing that some established firms aim to implement agile ways of working in order to show that they are also doing the right thing.

This study also supports that the most widely used agile methodologies, Scrum and Kanban are often used in combination rather than a single methodology followed exactly as it is proposed (Julian et al., 2019), which is referred to as *Scrumban* in the findings. Further, the

findings support that there are no clear boundaries of methodologies in use, which call for adaptation of the principles to each organization as there is no one-size-fit all solution (Kiv et al., 2019). However, the findings clarify that methodologies are of less importance than the existing literature propose. Established firms put the main emphasis on processes that in the best ways meet the organizational needs by implementing an own-developed version of existing agile methodologies. The focus should rather be directed at building efficient teams and processes, having agile management and developing the right culture.

Additionally, the findings add insights on existing literature and suggest that Kanban is preferred over Scrum, as Kanban is a more flexible methodology that aims to deliver minimum-viable-product to the customers. There is a difference in use of methodologies between less mature agile organisations that prefer Scrum as it has more structure, while more experienced organizations approach Kanban. Further, the findings state that Scrum is an outdated way of working as it can lead to delays, mainly because the sprints set the pace for deliveries rather than deliver continuously in an environment which changes so quickly. In contrast, the literature focus on Scrum and Kanban as equally important methodologies (Ahmad et al., 2013).

Further, the findings support autonomous teams as a fundamental structural element in agile ways of working, and point to team-based structure as essential in order to implement agile frameworks in established firms (Denning, 2016b). The findings indicate that the first step towards agility, requires a movement from hierarchical structure to flat structure, with establishment of autonomous, cross-functional teams, composed by people with the right competence to solve a task (Rigby et al., 2016a). The findings propose that the team structure is depending on whether there is a product team or project team. Product teams are usually fixed and consisting of the same people over time, while project teams vary in duration and people can be easily relocated. This enables the firm to more efficiently set up temporary project teams when an opportunity arises. The findings support that autonomous teams, which are given decision authority to decide and delegate tasks internally, are in a better position to faster come up with the best solution to solve a task. This is because autonomous teams are having closer contact with the market, and are thus able to discover customer needs as they arise (e.g. Bossert et al., 2018). In addition, autonomous teams work based on short planning

cycles, and are able to test the products on customers on an early stage, meaning they can adjust products fast according to customer feedback (e.g. Denning 2016b).

Existing literature highlights agile ways of working in terms of high level of autonomy, where the role of the management is less prominent (e.g. Rigby et al., 2018). In contrast, the findings of this study place significant emphasis on management as an important enabler for strategic agility. According to the findings, if the management does not support the agile transformation of an established firm, agility beyond team level is challenging or might be impossible to achieve. The findings highlight that management in agile organizations should embrace a different leadership style, where it appears that managers should be less controlling, and trust that teams are performing according to set goals. Moreover, the findings show that management should not interfere with the teams or tell the teams how to solve a task, but rather set direction, give support, and clarify goals. The idea that top management should not be involved in daily task orientation and rather focus on the business side, supports literature arguing that agile organizations leads to faster decision-making when teams working closer to customers are responsible for making decisions (Bossert et al., 2018).

Another finding that is prominent in this study, is the importance of communication between the management and the teams that have the autonomy to make own decisions. The management should continuously be involved in the feedback loops to be able to benefit from valuable insights from the teams, in order to make improved strategic decisions. By acting as coaches in own organization, managers are able to provide a secure organizational environment, motivate, and aid the teams when needed. This means potential problems can be solved quickly, and stimulates to openness and valuable information sharing (Aghina et al., 2018). This is supported by Stray et al. (2018) arguing that when an organization increases its number of teams, the teams are more dependent on management support.

On the other side, the findings give insights to management as a potential challenge towards achievement of strategic agility, when management is not having the right mindset. It is difficult for management in established firms to develop an agile mindset when they are used to traditional ways of working. If management is used to having a certain degree of power, it often feels less important when conducting minimal control, and thus resist to change will be present. In order for management to act as an enabler for strategic agility, it needs to adapt and overcome the presented obstacles.

Additionally, this study emphasize the importance of organizational culture when implementing agile ways of working. The findings contribute that having a learning culture together with the right management, are important enablers for agile ways of working to function optimally in order to achieve strategic agility. The finding highlights that established firms aiming to achieve strategic agility should favor a culture of learning, where learning from trying and failing is essential in order to become an innovative organization. It is suggested that management should foster a learning culture rather than a blame-game culture, allowing teams to experiment with new ideas without getting blamed if the ideas do not possess business opportunities.

The findings also state that learning requires implementation of feedback loops into the processes. When having feedback loops as a part of the agile practices, the teams are able to learn immediately, share information to the rest of the organization, and further enable the organization to turn around quickly. Thus, the findings are consistent with literature implying that agile organizations implement continuous learning as a constant part of agile ways of working (Aghina et al., 2018). Further, it becomes clear in our findings that establishing a learning culture takes time and effort, and can pose a challenge to established firms towards achieving strategic agility, when resistance to change is apparent. However, it is much up to management to provide a secure business environment and steer the culture in the right direction, and if necessary with use of external agile coaches having needed experience.

5.2 Strategic Agility

In accordance to the discussion of agile ways of working and its enablers, when established firms become agile, they are able to benefit from flexibility, increased speed, customer orientation, and engagement among employees and management. These outcomes in turn facilitate innovation. The findings of this study show that the outcomes achieved through agile ways of working constitute the key components of strategic agility, which implies that findings support the strategic agility literature including components of strategic sensitivity, strategic response and collective commitment (e.g. Doz & Kosonen, 2007a; Teece et al., 2016). The overview of the connection of outcomes achieved by established firms, and the components of strategic agility is presented in table 4.

<i>Outcomes</i>	<i>Key Components of Strategic Agility</i>
Flexibility	Strategic Response
Speed	Strategic Sensitivity Strategic Response
Customer Orientation	Strategic Sensitivity
Engagement	Strategic Sensitivity Collective Commitment

Table 4: Connection between outcomes of agile ways of working and key components of strategic agility

First, the findings place significant importance on the achievement of flexibility and increased speed emerging from well-functioning agile structures and processes. According to findings, whenever a new opportunity is discovered, when there is need for improvements or when there is a problem, flexibility allows established firms to prioritize what is most important, and allocate resources where they are needed the most, leading to the ability of changing the strategic direction without changing the organizational structure or processes. Further, the findings imply that increased speed opens for faster decision-making and faster product developments. When established firms become flexible and fast, they are in the position to respond to the constantly changing environments through seizing the opportunities, which supports the strategic response component presented in the literature (e.g. Teece et al., 2016). Additionally, the findings clarify that the ability to change and do it fast, is one of the primary drivers to become agile, which makes it to be the most valuable ability of the established firms when becoming an agile organization. This implies that strategic response component appears to be the most prominent through agile ways of working.

Further, the findings show that outcomes of speed and customer orientation allow established firms to sense opportunities and threats in the market as they emerge, because agile ways of working enable established firms to work close to the customers, and continuously adjust to customer needs. When being updated on what the needs of the customers are, established firms are able to develop those products or services that are really needed. At the same time there

will be no waste of resources when delivering in small packages, testing the products, and getting the feedback quickly. Through short planning cycles and continuous learning, established firms are in the position to discover opportunities for improvements and new opportunities in high speed. A line can be drawn between speed and customer orientation, and strategic sensitivity in the literature, and it is reasonable to argue that being able to turn around fast and having customer focus, it enables sensing component of strategic agility (e.g. Doz, 2020).

Another outcome established firms benefit from when implementing agile way of working is the outcome of engagement among individuals, leading to more committed actions. Engagement of the team members leads to increased efficiency in teams as team members increase their motivations through the given responsibility to make own independent decisions. Increased motivation of team members is an antecedent for strong collective drive towards achieving the goals set for the team. Accordingly, working in teams where team members have different roles and can follow the product from planning to delivery, make teams more collectively committed as they need to share their competences and communicate to deliver a product. In addition, the engagement of management emerges when management experiences that agile ways of working serve the established firms with benefits, which increases the commitment of the management. This is in line with the literature focusing on management and its unifying actions (e.g. Doz, 2020). Hence, achieved engagement between employees and management supports the collective commitment component of strategic agility where it is argued that human resources through shared competences and collaboration enhance knowledge of the firms and increase learning, which is of high importance for strategic agility to be achieved (Mavengere, 2013). However, the findings show more evidence of employee engagement than management engagement, pointing that agile ways of working primary creates collective commitment between team members.

It is also shown in the findings that the engagement of employees leads to increased creativity because of the learning culture which allows trial and error. Employees are allowed to embrace the creativity and experiment, which can be related to the component of the strategic sensitivity as creativity and explorative abilities are needed when generating opportunities for growth (e.g. Teece et al., 2016). The findings in this study put less emphasis on the component of collective commitment compared to strategic response and strategic sensitivity, while the existing

literature view the three components of strategic agility as equally important (e.g. Doz & Kosonen, 2007a).

Finally, the findings of this study clarifies and contributes that when being agile, it first and foremost leads to increased frequency of incremental innovations through the outcomes of flexibility, increased speed, customer focus and employee engagement. When teams work close to the customer and have engaged employees, they are in better position to discover and experiment with innovations, and then, through their flexible structure and speedy processes, can seize the innovations. However, the findings do not show any evidence of radical innovations in established firms. The informants at Consulting Firm made it very clear that pursuing a new business model and changing the strategic direction completely, is neither a primary aim of established firms when becoming agile, or possible to achieve through only agile ways of working.

Existing literature states that agility at strategic level allows to capture new markets and new customers (e.g. Denning 2016b), while the findings in this study show that agile ways of working enabled by management and culture are in itself not enough for radical innovations to take place. This study contributes that established firms in addition to being agile, must explicitly focus on innovations in order to sense them. It is suggested to create a separate unit or team that actively challenge the creativity, as doing both exploiting and exploring is difficult to manage, which is supported in the literature claiming that both efficiency and innovation are hard to accomplish (Puranam & Clément, 2020). However, the findings propose that agile ways of working make established firms most likely to be in a better position to seize radical innovations if or when opportunities are sensed. As previously stated, findings of this study confirm that agile organizations become flexible and fast, enabling them to be respond to changing environments. Hence, it is reasonable to assume that agile organizations are not only in a position to seize incremental innovations, but also radical innovations, unlike traditional ways of working where the organizations not necessarily have the capabilities of flexibility and speed (e.g. Denning, 2015)

6. CONCLUSION

In the final section of this study, the aim is to provide an answer to the research question: *How can established firms adapt and renew their strategic direction through agile ways of working?* The agility literature is expanded with empirical findings and provides theoretical contributions. Further, practical implications for established firms are presented, followed by the discussion of limitations of this study. And lastly, recommendations for future research are presented.

The findings show that the fundamental elements in an agile transformation are implementing a team structure containing autonomous, cross-functional teams, and agile processes rooted in agile methodologies. This is supportive of statements in existing literature on how to become an agile organization, and that there is no one-size-fits-all solution for agile methodologies implemented (e.g. Denning, 2016b; Kiv et al., 2019). The contribution of this study is that agile methodologies are of less importance, and established firms need rather to adopt those practices that are in the best alignment with the existing organization, which constitute an important success factor.

Further, the research shows that implementing the fundamental elements are not sufficient for established firms to adapt and renew their strategic direction. The theoretical contributions of this study is that there is a crucial need for agile management and learning culture to enable strategic agility. Management functions as an enabler, as it is in a position to provide the needed autonomy and responsibility to the teams, and set direction in order for the teams to be well-functioning and make own decisions. Another contribution is that the management can pose a significant challenge and *kill agile* when not being on board of the agile transformation. Also, management must facilitate a culture where experimenting through trying and failing is accepted, where employees can continuously learn and embrace innovations. Thus, learning culture appears to be another critical enabler for strategic agility to be achieved.

The findings reveal that when implementing agile ways of working and enabling higher level of agility through agile management and learning culture, established firms achieve outcomes of flexibility, increased speed, customer orientation and engagement among employees. These outcomes in combination constitute the components of strategic agility; strategic sensitivity,

strategic response and collective commitment, implying that established firms through agile ways of working are positioned to adapt and renew their strategic direction.

However, the findings show that the renewal is limited to incremental innovations, implying that the component of strategic sensitivity is not fully achieved through agile ways of working. The contribution is that in order for radical innovations to take place in agile organizations, other mechanisms are needed, as agile ways of working are not sufficient. Nevertheless, agile organizations have better prerequisites to discover radical innovations when working close to the costumers and experimenting. If opportunities for radical innovations discovered, they will most likely be able to seize it faster and without changes in the organizational structure given sufficient autonomy, aligned processes, agile management and learning culture.

6.1 Practical Implications

In this subsection, the practical implications of this study for established firms and their managers considering an agile transformation, are described. In this study it has been demonstrated how established firms are able to adapt and renew their strategic direction by implementing agile ways of working. To that end, the study can be used as a guideline for how established firms can pursuit strategic agility, and this study also create awareness of the potential challenges that may occur during an agile transformation.

This research shows that established firms implementing agile ways, are able to adapt and renew their strategic direction if an agile management and learning culture are also present. As the research shows, conducting an agile mindset and developing the right culture in an established firm requires comprehensive changes. The management must first and foremost dare to give up control and trust its employees, by giving the teams autonomy and mandate to make their own decisions, which this research has found to be important, but also to some extent challenging for management to perform. Through highlighting the potential challenges, it is desirable that this research contributes to facilitate established firms in conducting successful agile transformations. In addition, established firms that are considering to implement agile ways of working, have to be aware that it requires effort, and is a continuous ongoing process. In the case of implementing agile ways of working, it has to be pointed out that established firms should seek to adapt its working processes based on agile methodologies, and it is advantageous to adjust the methodologies to fit the particular firm and team characteristics in order to succeed.

Further, it is important to notice that agile ways of working are of varying importance for established firms in different industries. The needed level of agility simply depends on the goals and characteristics of the company and the business environment. Thus, this study does not discuss which industry agility is appropriate for, but rather how established firms in general can adapt and renew through agile ways of working. Moreover, it is important to notice that this research is based on a consultancy perspective, and that established firms themselves can have other opinions or experiences about agile ways of working and the respective outcomes.

As a final word, there must ultimately be a desire to become an agile organization, rather than following a business trend.

6.2 Limitations

There are several limitations in this study that need to be highlighted. First, within the business environment, agility is a wide and emerging research topic, being too broad to cover everything in one study with the time frame of one semester. Thus, refinements of the topic were needed, and the research question was narrowed down to focusing on agile ways of working and strategic agility. Further, due to the fixed time frame, data collection was limited to one case company, making it to be context sensitive. It would have been valuable and interesting to collect additional insights by interviewing some of the established firms that are clients of Consultancy Firm, in order to get their perspective on agile ways of working. This would have strengthened the research quality, and created a clearer picture of how established firms experience an agile transformation, including the results they achieve from agile ways of working.

Additionally, it is important to mention that since this study was written during the emerged Covid-19 pandemic, the opportunity to personally meet the key contact and informants at Consulting Firm at their head office was not possible. As a result, personal contact with the informants was unable to be established. Personal contact would might have given a greater understanding of the context, as well as valuable conversations and information sharing. Furthermore, since NHH had to close in the middle of March in order to limit the social contact as a result of Covid-19, it became challenging to get access to additional data materials, and other technological equipment that could have provided a more efficient work process with this

thesis. In addition, personal meetings with the supervisor of this thesis and other FOCUS participants were replaced with internet-mediated video meetings, which was challenging. Despite the challenges caused by Covid-19, we did our best to make sure that the quality of this research was not affected.

6.3 Future Research

This study provides recommendations for future research within the topic of organizational agility. Building upon the findings of this study, giving that agile ways of working do not lead to radical innovations and that more mechanisms are suggested, it would be interesting to investigate what mechanisms are needed for established firms to sense disrupting market opportunities. In addition, the findings state that when such opportunities are discovered, established firms, when being agile, will be in a position to seize the innovations. This statement needs more research to find out if established firms are actually capable of seizing radical innovations through agile ways of working.

Another interesting research context which could be worth investigating, is how those established firms that already were agile organizations before the emerge of the Covid-19 pandemic, were able to adapt and renew to such unexpected event that caused uncertainty not only in one single market, but affected the whole world. This might allow to examine how flexible and fast established firms actually become when conducting an agile transformation.

References

- Abrahamson (1991). Managerial Fads and Fashion: The Diffusion and Rejection of Innovation. *Academy of Management Review*. 16(3), 586-612. DOI: 80.212.26.109
- Aghina, W., Ahlbäck, K., De Smet, A., Fahrback, C., Handscomb, C., Lackey, G. & Woxholth, J. (2018). The Five Trademarks of Agile Organizations. *McKinsey & Company*. Retrieved from: <https://www.mckinsey.com/business-functions/organization/our-insights/the-five-trademarks-of-agile-organizations>
- Aghina, W., Handscomb, C., Ludolph, J., Rona, D. & West, D. (2020). Enterprise agility: Buzz or business impact. *McKinsey & Company*. Retrieved from: <https://www.mckinsey.com/business-functions/organization/our-insights/enterprise-agility-buzz-or-business-impact#>
- Ahmad, M. O., Markkula, J., & Oivo, M. (2013). Kanban in Software Development: A Systematic Literature Review. In *Software Engineering and Advanced Applications (SEAA), 2013 39th EUROMICRO Conference*, pp, 9-16. IEEE. DOI: 10.1109/SEAA.2013.28
- Başkarada, S. & Koronis, A. (2018). The 5S organizational agility framework: a dynamic capabilities perspective. *International Journal of Organizational Analysis*. 26(2), 331-342. DOI: 10.1108/IJOA-05-2017-1163
- Beck, K. et al. (2001). Manifesto for Agile Software Development. Agile Alliance. Retrieved from: <https://agilemanifesto.org/iso/en/manifesto.html>
- Blank, S. (2019). When Waterfall Principles Sneak Back Into Agile Workflows. Harvard Business Review. Retrieved from: <https://hbr.org/2019/09/when-waterfall-principles-sneak-back-into-agile-workflows>
- Bossert, O., Kretzberg, A., Laartz, J. (2018). Unleashing the power of small, independent teams. *McKinsey & Company*. Retrieved from: <https://www.mckinsey.com/business-functions/organization/our-insights/unleashing-the-power-of-small-independent-teams>
- Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3, 77-101.
- Brosseau, D., Ebrahim, S., Handscomb, C. & Thaker, S. The journey to an agile organization. *McKinsey & Company*. Retrieved from: <https://www.mckinsey.com/business-functions/organization/our-insights/the-journey-to-an-agile-organization>
- Conboy, K. (2009). Agility from First Principles: Reconstructing the Concept of Agility in Information Systems Development. *Information Systems Research*. 20(3), 329-354

- De Smet, A. (2018). The agile manager. *McKinsey & Company*. Retrieved from: <https://www.mckinsey.com/business-functions/organization/our-insights/the-agile-manager>
- De Smet, A., Lurie, M. & St George, A. (2018). Leading agile transformation: The new capabilities leaders need to build 21st century organizations. *McKinsey & Company*. Retrieved from: <https://www.mckinsey.com/~media/mckinsey/business%20functions/organization/our%20insights/leading%20agile%20transformation%20the%20new%20capabilities%20leaders%20need%20to%20build/leading-agile-transformation-the-new-capabilities-leaders-need-to-build-21st-century-organizations.ashx>
- Dearstyne, B. W. (2018). Achieving Nimble IM Programs Through Agile Methodology. *ARMA International*. Retrieved from: https://magazine.arma.org/wp-content/uploads/simple-file-list/2018_04_IM_nimble_im_programs_agile_method_dearstyne.pdf
- Denning, S. (2015). How to make the whole organization Agile. *Strategy & Leadership*, Vol. 43, No. 6, pp. 10-17. DOI: 10.1108/SL-09-2015-0074
- Denning, S. (2016a). Agile's ten implementation challenges. *Strategy & Leadership*. 44(5), 15-20. DOI: 10.1108/SL-08-2016-0065
- Denning, S. (2016b). Understanding the three laws of Agile. *Strategy & Leadership*. 44(6), 3-8. DOI 10.1108/SL-09-2016-0074
- Denning, S. (2017). The next frontier of Agile: strategic management. *Strategy & Leadership*. 45(2), 12-18. DOI: 10.1108/SL-02-2017-0021
- Doz, Y. (2020). Fostering strategic agility: How individual executives and human resource practices contribute. *Human Resource Management Review* 30(1), 1-14. DOI:10.1016/j.hrmr.2019.100693
- Doz, Y., & Kosonen, M. (2007a). *Fast Strategy: How Strategic Agility Will Help You Stay Ahead of the Game*. Wharton School Press
- Doz, Y., & Kosonen, M. (2007b). The New Deal at the Top. *Harvard Business Review*. Retrieved from: <https://hbr.org/2007/06/the-new-deal-at-the-top>
- Doz, Y., & Kosonen, M. (2010) Embedded Strategic Agility: A Leadership Agenda for Accelerating Business Model Renewal. *Long Range Planning Special Issue on Business Models*, 43, 370-382. DOI:10.1016/j.lrp.2009.07.006

- Dybå, T & Dingsøyr, T. (2009). What do we know about Agile Software Development? *IEEE Computer Society*, 26(5), 6-9. DOI: 10.1109/MS.2009.145
- Felipe, L. C., Roldán, J. & Leal-Rodríguez, A. (2016). An explanatory and predictive model for organizational agility. *Journal of Business Research*, 69 (10). DOI: 10.1016/j.jbusres.2016.04.014
- Flumerfelt, S., Siriban-Manalang, A. B., & Kahlen, F. (2012). Are agile and lean manufacturing systems employing sustainability, complexity and organizational learning? *The Learning Organization*. 19(3), 238-247. DOI: 10.1108/09696471211219976
- Ghuri, P. N. & Grønhaug, K. (2005). *Research Methods in Business Studies: A Practical Guide*. Harlow: Pearson.
- Goldman, S. L., Nagel, R. N., & Preiss, K. (1995). Agile Competitors and Virtual Organizations: *Strategies for Enriching the Customer*. Van Nostrand Reinhold, New York.
- Goncalves, L. (2018). Scrum. The methodology to become more agile. *Controlling & Management Review*, 62(4), 40-42.
- Gothelf, J. (2014). Bring Agile to the Whole Organization. *Harvard Business Review*. Retrieved from: <https://hbr.org/2014/11/bring-agile-to-the-whole-organization>
- Gren, L., Goldman, A. & Jacobsson, C. (2019). Agile Ways of Working: A Team Maturity Perspective. *The Journal of Software: Evolution and Process*. DOI: 10.1002/smr.2244.
- Guba, E. G. (1981). Criteria for Assessing the Trustworthiness of Naturalistic Inquiries. *Educational Communication and Technology*, 29(2), 75-91.
- Gunasekaran, A. (1999). Agile manufacturing: a framework for research and development. *International Journal of Production Economics*, 62, 87-105.
- Harraf, A., Wanasika, I., Tate, K., & Talbott, K. (2015). Organizational Agility. *The Journal of Applied Business Research*. 31(2), 675-686.
- Harris, D., Kaefer, F., & Salchenberger, L. M. (2013). The development of dynamic capabilities through organizational and managerial processes. *International Journal of Business Environment*, 5(4), 398-412. DOI: 10.1504/IJBE.2013.05.2087
- Heifetz, R., & Laurie, D. (2001). The Work of Leadership. *Harvard Business Review*. Retrieved from: <https://hbr.org/2001/12/the-work-of-leadership>

- Holtzhausen, N., & Klerk, J. J. (2018). Servant leadership and the Scrum team's effectiveness. *Leadership and Organization Development Journal*. 39(7), 873-882.
- Jacobs, P., Schlatmann, B., & Mahadevan, D. (2017). ING's agile transformation. *McKinsey & Company*. Retrieved from: <https://www.mckinsey.com/industries/financial-services/our-insights/ings-agile-transformation>
- Johannessen, A., Christoffersen, L. & Tufte, P. A. (2011). *Forskningsmetode for Økonomisk Administrative Fag*. (3rd ed.). Bergen: Abstrakt Forlag.
- Julian, B., Noble, J. & Anslow, C. (2019). Agile Practices in Practice: Towards a Theory of Agile Adoption. *Springer International Publishing*. 355, 3-18. DOI: 10.1007/978-3-030-19034-7_1.
- Kidd, P. T. (1994). *Agile Manufacturing: Forging New Frontiers*. Reading, MA: Addison-Wesley,
- Kiv, S., Heng, S., Kolp M. & Wautelet, Y. (2019). Agile Methods Knowledge Representation for Systematic Practices Adoption. *Springer International Publishing*. 355, 19-34. DOI: 10.1007/978-3-030-19034-7_2.
- KPMG (2019). Agile Transformation. Retrieved from: <https://assets.kpmg/content/dam/kpmg/nl/pdf/2019/advisory/agile-transformation.pdf>
- Kroll, C., Boeing, L., Schmidt, T., Thöle, B., Lengfeld, C. & Rauch, R. (2017). Agile Organizations. *Capgemini Consulting*. Retrieved from: https://www.capgemini.com/consulting-de/wp-content/uploads/sites/32/2017/08/cc_agile_organization_pov_20170508.pdf
- Kvale, S. & Brinkmann, S. (2015). *Det kvalitative forskningsintervju* (3rd ed.). Oslo: Gyldendal Akademisk
- Lei, H., Ganjezadeh, F., Jayachandran, P. K., & Ozcan, P. (2017). A statistical analysis of the effects of Scrum and Kanban on software development projects. *Robotics and Computer-integrated Manufacturing*. 43, 59-67. DOI: 10.1016/j.rcim.2015.12.001.
- Lengnick-Hall, C. A., & Beck, T. E. (2009) Resilience capacity and strategic agility: Prerequisites for thriving in a dynamic environment. *Resilience Engineering Perspectives: Preparation and Restoration* San Antonio: UTSA, College of Business.
- Leopold, K. & Kaltenecker, S. (2015). Kanban Change Leadership: Creating a Culture of Continuous Improvement. *John Wiley & Sons, Incorporated*.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage.

- Laanti, M (2014). Characteristics and Principles of Scaled Agile. *Lecture Notes in Business Information Processing*, 199, 9-20.
- Laanti, M., Salo, O., & Abrahamsson, P. (2011). Agile methods rapidly replacing traditional methods at Nokia: A survey of opinions on agile transformation. *Information and Software Technology*, 53(3), 276-290.
- Maguire, M. & Delahunt, B. (2017). Doing a Thematic Analysis: A Practical, Step-by-Step Guide for Learning and Teaching Scholars. *All Ireland Journal of Teaching and Learning in Higher Education (AISHE-J)*, 8(3).
- Mavengere, N. (2013). Information technology role in supply chain's strategic agility. *International Journal of Agile Systems and Management*, 6(1), 7-24.
- Moe, N. B., Dahl, B., Stray, V., Karlsen, L. S & Schjødt-Osmo, S. (2019). Team Autonomy in Large-Scale Agile. DOI: 10.24251/HICSS.2019.839
- Moe, N. B., Dingsøy, T. & Dybå, T. (2008). Understanding Self-Organized Teams in Agile Software Development. *19th Australian Conference on Software Engineering*, pp. 76-85. DOI: 10.1109/ASWEC.2008.28
- Moe, N. B., Dingsøy, T. & Dybå, T. (2009). Overcoming barriers to self- management in Software Teams. *IEEE Software*. 26(6), 20-26.
- Morton, J., Stacey, P., & Mohn, M. (2018). Building and Maintaining Strategic Agility: An Agenda and Framework for Executive IT Leaders. *California Management Review* 61(1), 94-113. DOI: 10.1177/0008125618790245
- Nonaka, I., & Takeuchi, H. (1995). *The Knowledge Creating Company*. New York: Oxford University Press.
- Nowell, L. S., Norris, J. M., White, D. E. & Moules, N. J. (2017). Thematic Analysis: Striving to Meet the Trustworthiness Criteria. *International Journal of Qualitative Methods*, 16, 1-13. DOI: 10.1177/1609406917733847
- Oliva, F. L., Couto, M. H. G., & Santos, R. F. (2019). The integration between knowledge management and dynamic capabilities in agile organizations. *Management Decision*, 57(8), 1960-1979. DOI: 10.1108/MD-06-2018-0670
- Overby, E., Bharadwaj, A., & Sambamurthy, V. (2006). Enterprise agility and the enabling role of information technology. *European Journal of Information Systems*, 15, 120-131. DOI: 10.1057/palgrave.ejis.3000600

- Panda, S. & Rath, S. K. (2015). Investigating the structural linkage between IT capability and organizational agility. *Journal of Enterprise Information Management*, 29(5), 751-773.
- Pandey, S. C. & Patnaik, S. (2014). Establishing reliability and validity in qualitative inquiry: A critical examination. *Jharkhand Journal of Development and Management Studies*, 12(1), 5743- 5753.
- Parker, D. W., Holesgrove, M. & Pathak, R. (2015). Improving productivity with self-organized teams and agile leadership. *International Journal of Productivity and Performance Management*. 64(1), 112-128.
- Puranam, P., & Clément, J. (2020). Why Agile May Be Fragile. *Insead Knowledge*. Retrieved from: <https://knowledge.insead.edu/blog/insead-blog/why-agile-may-be-fragile-10201>
- Ravichandran, T. (2018). Exploring the relationship between IT competence, innovation capacity and organizational agility. *Journal of Strategic Information Systems*, 22-42. DOI: 10.1016/j.jsis.2017.07.002
- Rigby, D. K., Sutherland, J. & Noble, A. (2018). Agile at Scale. *Harvard Business Review*, 2018 (5), p. 88-96. Retrieved from: <https://hbr.org/2018/05/agile-at-scale>
- Rigby, D. K., Sutherland, J., & Takeuchi, H. (2016a). Embracing Agile. *Harvard Business Review*. Retrieved from: <https://hbr.org/2016/05/embracing-agile>
- Rigby, D. K., Sutherland, J. & Takeuchi, H. (2016b). The Secret History of Agile Innovation. *Harvard Business Review*. Retrieved from: <https://hbr.org/2016/04/the-secret-history-of-agile-innovation>
- Saldaña, J. (2013). *The Coding Manual for Qualitative Researchers*. Thousand Oaks, CA: Sage.
- Salo, O. (2017). How to create an agile organization. *McKinsey & Company*. Retrieved from: <https://www.mckinsey.com/business-functions/organization/our-insights/how-to-create-an-agile-organization>
- Saunders, M., Lewis, P. & Thornhill, A. (2016) *Research methods for business students*. (7th ed.). Harlow: Pearson.
- Schwaber, K., & Sutherland, J. (2017). The Scrum Guide. The Definitive Guide to Scrum: The Rules of the Game. Retrieved from: <https://www.scrumguides.org/docs/scrumguide/v2017/2017-Scrum-Guide-US.pdf>

- Sherehiy, B. & Karwowski, W. The relationship between work organization and workforce agility in small manufacturing enterprises. (2014). *International Journal of Industrial Ergonomics*. 44(3), 466-473. DOI: 10.1016/j.ergon.2014.01.002.
- Sherehiy, B., Karwowski, W. & Layer, J. K. (2007). A review of enterprise agility: Concepts, frameworks, and attributes. *International Journal of Industrial Ergonomics*. 37(5), pp. 445-460. DOI: 10.1016/j.ergon.2007.01.007.
- Sinkovics, R. R., Penz, E. & Ghauri, P. N. (2008). Enhancing the Trustworthiness of Qualitative Research in International Business. *Management International Review*, 48(6), 689-714. DOI: 10.1007/s11575-008-0103-z
- Stray, V., Moe, N. B. & Hoda, R. (2018). Autonomous in agile teams: Challenges and future directions for research. In S. Wagner, R. Hoda, & A. Aguiar (Eds.), *Companion Proceedings - 19th International Conference on Agile Software Development* [16]. Association for Computing Machinery (ACM). DOI: 10.1145/3234152.3234182.
- Strode, D. (2015). Applying Adapted Big Five Teamwork Theory to Agile Software Development. *Australasian Conference on Information Systems*. Retrieved from: <https://arxiv.org/pdf/1606.03549.pdf>
- Sull, D. (2009). Competing through organizational agility. *McKinsey & Company*. Retrieved from: <https://www.mckinsey.com/business-functions/organization/our-insights/competing-through-organizational-agility>
- Takeuchi, H. & Nonaka, I. (1986) The New New Product Development Game. *Harvard Business Review*, 64, 137-146.
- Teece, D. (2007). Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28(13), 1319-1350
- Teece, D. (2011). Dynamic Capabilities: A Guide for Managers. *Ivey Business Journal*. Retrieved from: <https://iveybusinessjournal.com/publication/dynamic-capabilities-a-guide-for-managers/>
- Teece, D., & Pisano, G. (2003). *The dynamic capabilities of firms*. Handbook on knowledge management. Springer, Berlin, Heidelberg.
- Teece, D., Peteraf, M., & Leih, S. (2016). Dynamic Capabilities and Organizational Agility: Risk, Uncertainty, and Strategy in the Innovation Economy. *California Management Review*, 58(4), 13-35.

- Teece, D., Pisano, G., & Shuen, A. (1997). Dynamic Capabilities and Strategic Management. *Strategic Management Journal*, 18(7), 509-533.
- Thagaard, T. (2018). *Systematikk og innlevelse. En innføring i kvalitativ metode* (5th ed.). Bergen: Fagbokforlaget.
- Vinekar, V., Slinkman, C. W., & Nerur, S. (2006). Can Agile and Traditional Systems Development Approaches Coexist? An Ambidextrous View. *Information Systems Management*. 23(3), 31-42.
- Vlietland, J., van Solingen, R., & van Vliet, H. (2016). Aligning codependent Scrum teams to enable fast business value delivery: A governance framework and set of intervention actions. *The Journal of Systems and Software*. 113, 418-429. DOI: 10.1016/j.jss.2015.11.010
- Wahyono (2018). A conceptual framework of strategy action and performance dimensions of organizational agility development. *Industrial and Commercial Training*, 50(6), 326-341. DOI: 11.1108/ICT-12-2017-0103
- Wendler, R. (2013). The Structure of Agility from Different Perspectives. *2013 Federated Conference on Computer Science and Information Systems, FedCSIS 2013*, 1177-1184.
- Williams, L., & Cockburn, A. (2003). Agile software development: It's About Feedback and Change. *Computer*. 36(6), 39-43. DOI: 10.1109/MC.2003.1204373
- Williamson, O. (1999). Strategy Research: Governance and Competence Perspectives. *Strategic Management Journal*, 20, 1087-1108.
- Yusuf, Y., Sarhadi, M., Gunasekaran, A. (1999). Agile Manufacturing: the drivers, concepts and attributes. *International Journal of Production Economics*. 62(1-2), 835-866.
- Žitkienė, R. & Deksnys, M. (2018). Organizational Agility Conceptual Model. *Montenegrin Journal of Economics*. 14 (2), 115-129.
- Zollo, M. & Winter, S. G. (2002). Deliberate Learning and the Evolution of Dynamic Capabilities. *Organization*

Appendix

Appendix A: Interview Guide

INTRODUKSJON

- Kan du fortelle om din bakgrunn og din stilling i selskapet?
- Hvordan er din jobb relatert til smidige løsninger?

OM SMIDIG ORGANISERING (STRATEGISK AGILITET GENERELT)

- Er smidig organisering noe kundene ønsker selv (etterspør) eller er det dere som introduserer det for kunden?
- Hva er hovedformålet for dine klienter når de ønsker smidige løsninger evt. å bli agil/oppnå agilitet?
- Hva bringer agile måter å jobbe på av verdi for bedriftene? (verdi utover det kunden ser som verdifullt)
- Hvilke utfordringer har etablerte bedrifter med å endre seg og innovere?

AGILE METODER

- Hva betyr det å jobbe agilt?
Kan du gi et konkret eksempel fra et klient/kundeoppdrag?
- Hvordan er denne måte å arbeide på forskjellig fra tidligere måter å arbeide på.
Hensikt: fange opp hva de legger i den smidige løsningen/agile metoder
 - I hvilken grad varierer den smidige løsningen fra kunde til kunde?
- Er det bransjelikheter når det gjelder hvilke metoder som velges å bli innført?
 - Dersom forskjeller - hva påvirker valg av smidig løsning/agile metoder i prosjekter?
- Er det noen arbeidsmetoder innenfor den smidige løsningen som blir brukt mer enn en annen? (*Scrum, Kanban* osv.)
- Hva skal til for at tradisjonelle bedrifter skal kunne innføre agile metoder? (hvilke forutsetninger må ligge til grunn)
 - Hva er de største utfordringene? Varierer dette over tid?
 - Hvordan kan man håndtere disse?
- Kan hele organisasjonen bli organisert slik? (*organizational wide-agility*)

ENDRINGS- OG INNOVASJONSKAPASITET

- Bidrar den smidige løsningen til større kapasitet for endring og innovasjon?
Hvis ja - hvordan? Kan du gi noen konkrete eksempler?
- Hvordan vurderer dere om implementering av agile metoder kan ansees som vellykket? (*hvordan vet vi at de metodene fører til dynamiske evner/kapasitet*)
- Dersom du sammenligner to ulike prosjekter: et som de fleste vil være enig i var vellykket og man oppnådde en smidig organisering, og et annet som ikke lyktes i samme grad.
 - Kan du beskrive de to prosjektene og hva som var de viktigste forskjellene?
 - Hva er noen viktige hindringer?
 - Hva skal til for å lykkes?
- Hva oppnår bedrifter ved å jobbe agilt:
 - Hjelper det bedriftene til evnen å fange opp signaler for nye muligheter og trusler i markeder og skape nye idéer? (*sense/strategic sensitivity*).
Hvis ja – hvordan? Kan du gi konkrete eksempler?
 - Bidrar det til evnen å gripe muligheter og implementere endringer? (*seize*).
Hvis ja – hvordan? Kan du gi noen konkrete eksempler?
 - Hjelper det de med allokering og restrukturering av eksisterende ressurser? (*reconfigure/resource fluidity*).
Hvis ja, hvordan? Kan du gi noen konkrete eksempler?
 - Er det en av disse evnene som utmerker seg som spesielt viktige ift hva man kan oppnå ved innføring av agile metoder? (*sense, seize, reconfigure*)

LEDELSE (*leadership unity*)

- Påvirker agile metoder ledelsens evne til å ta og implementere raske/effektive strategiske beslutninger? Hvordan? Kan du gi noen konkrete eksempler?
- Bidrar agile metoder til økt engasjement? Hos ansatte? Er der noen tegn til kollektivt engasjement blant ledelsen?
- Hvilken betydning har ledelsen for at bedrifter klarer å lykkes med å bli smidige? Er det noen spesielle egenskaper som skal til? Hva med organisering?

AVSLUTTENDE

- Vil agile måter å jobbe på vil være like relevant i alle bransjer i de kommende årene?
 - Evt. hvilke bransjer vil det være mer relevant og verdifullt versus mindre?
Hvorfor?
- Er det noe du ønsker å legge til som kan bidra med relevant innhold til denne oppgaven?

Appendix B: Consent Form

Samtykkeerklæring – deltakelse i forskningsprosjekt FOCUS RaCE program

Bakgrunn og formål

Denne forskningen er en del av RaCE prosjektet på Samfunns- og Næringslivsforskning (SNF) og Norwegian School of Economics (NHH). Formålet er å utvikle forskningsbasert kunnskap og undersøke hvordan etablerte virksomheter responderer på radikale teknologidrevne endringer. Som en del av prosjektet, skal vi i vår oppgave se på hvordan smidige løsninger kan føre til endrings- og innovasjonskapasitet. Vi henvender oss til personer med sentral informasjon om smidige løsninger.

Hva innebærer deltakelse i studien?

Vi inviterer deg til å delta i et videointervju som vil vare 1 - 1,5 time. Dersom du godkjenner det, vil vi ta opp intervjuet på lydfil. Under intervjuet vil vi ta notater. Etter avsluttet intervju, vil lydfilen og notater bli brukt til å transkribere intervjuet. Lydfilen slettes etter transkribering, og den transkriberte versjonen av intervjuet vil anonymiseres.

Hva skjer med informasjonen om deg?

Alle personopplysninger vil bli behandlet konfidensielt, og informasjonen som lagres sammen med den transkriberte versjonen av intervjuet vil ikke inneholde navn – men en tilegnet kode. Navn og eventuelle kontaktopplysninger, samt dette skjemaet, vil oppbevares adskilt fra intervjudata. Det er kun prosjektgruppen på NHH/SNF som vil kunne få tilgang til de anonymiserte intervjuene. Din bedrift vil bli anonymisert.

Vår studie avsluttes juni 2020.

RaCE prosjektet skal etter planen avsluttes juni 2023.

Frivillig deltakelse

Det er frivillig å delta i forskningsprosjektet, og du kan når som helst trekke ditt samtykke uten å oppgi noen grunn. Dersom du trekker deg, vil alle opplysninger om deg, og ditt intervju, bli slettet.

Dine rettigheter

Så lenge du kan identifiseres i datamaterialet, har du rett til:

- innsyn i hvilke personopplysninger som er registrert om deg
- å få rettet personopplysninger om deg
- få slettet personopplysninger om deg

- få utlevert en kopi av dine personopplysninger (dataportabilitet)
- å sende klage til personvernombudet eller Datatilsynet om behandlingen av dine personopplysninger

Hva gir oss rett til å behandle personopplysninger om deg?

Vi behandler opplysninger om deg basert på ditt samtykke.

På oppdrag fra SFN/NHH har NSD (Norsk senter for forskningsdata AS) vurdert at behandlingen av personopplysninger i dette prosjektet er i samsvar med personvernregelverket.

Dersom du har spørsmål til forskningsprosjektet, kan du kontakte:

Inger Stensaker, FOCUS leder og veileder, NHH

E-post: inger.stensaker@nhh.no

Mobil: 997 92 127

Džudera Glesne, NHH

E-post: dzudera@hotmail.com

Mobil: 984 71 551

Madelen Pedersen, NHH

E-post: madelen_pedersen@hotmail.com

Mobil: 988 87 789

Samtykke til deltakelse i studien

Jeg har mottatt skriftlig informasjon om studien, og er villig til å delta i intervjuet

Signatur..... Dato.....

Fullt navn

(Signert av prosjektdeltaker, dato)