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The Challenges Encountered by the Managers of Exploratory Units in Structurally Ambidextrous Organizations

A Comparative Case Study

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Executive Summary

In this comparative case study, we explore the challenges encountered by the managers of exploratory units in three structurally ambidextrous companies, and how these challenges are handled. We review existing literature on organizational ambidexterity in combination with insights from innovation management tools and theories of entrepreneurial orientation. Following, we have conducted interviews in three companies, which all have established organizational ambidexterity as a response to changes in their environment. Organizational ambidexterity induces several challenges for the companies that choose to adopt it. While the challenges for the top management in structurally ambidextrous companies are well known, there is little knowledge on what challenges managers of the exploratory unit encounter. Nevertheless, the contradicting demands that arise in ambidextrous organizations are likely to affect also the latter.

Our main findings demonstrate that the managers of exploratory units indeed encounter challenges when delivering innovation. The key challenges include areas such as lack of resources and tolerance for failure, tension between units, uncertainty, risk aversion, resistance to change, short-term focus. In addition, we find that a recurring set of beliefs among the managers of exploratory units include the notion that the success of innovation is highly dependent on trust from top management and an optimal balance between autonomy and attention.

We further observe that in order to handle the challenges, the managers of exploratory units rely on various alternative innovation management tools, adapt elements of entrepreneurial orientation and collaborate with external parties. These tools appear to allow the exploratory unit to continue delivering innovation, also when challenges are significant. When and to what degree these methods are applied differs between the cases.

These findings are relevant for practitioners attempting to manage exploratory units and deliver innovation projects in ambidextrous organizations, by highlighting the anticipated challenges and tools used to handle them.

Preface

This thesis is written as part of the Masters of Science in Economics and Business at the Norwegian School of Economics where both authors currently pursue a specialization in Strategy and Management. This thesis is done as part of a research program at the Norwegian School of Economics called Future-Oriented Corporate Solutions (FOCUS). Being part of FOCUS has made our work more meaningful and enjoyable.

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1. Introduction

Innovation is deemed as one of the most important factors when it comes to establishing a sustainable competitive advantage. This is mainly because innovation is based on accumulation of intangible assets, such as R&D and knowledge, both difficult to accumulate and imitate. Further, innovation is said be a source of growth and external knowledge. However, countless of ideas and innovation efforts fail and never become viable. These failures are often attributed to a lack of proper innovation management (Barney, 1991; Jung, Wu & Chow, 2008; Chesbrough, 2003; Un, 2011; Hogan & Coote, 2014).

Simultaneously, the context that companies operate in has changed over the last few years. Uncertainty has increased, innovation logic, innovation focus and innovation streams have shifted (O'Reilly & Tushman, 2004; Bloom, 2014). Thus, innovation is more relevant than ever (Benner & Tushman, 2013). Companies today must both exploit their traditional businesses to generate income and explore potential future income streams (O'Reilly and Tushman, 2004). With two fundamentally different concepts in the same company, managing exploration and exploitation has shown to be a substantial challenge. While exploratory activities are rooted in uncertainty increasing activities, learning by doing and trial and error, exploitation is focused on uncertainty decreasing activities and disciplined problem solving (Smith & Tushman, 2005).

One way to solve the tension between exploration and exploitation is the structurally ambidextrous model, which allows companies to both explore and exploit simultaneously by imposing structural separation of the two (O'Reilly & Tushman, 2004). Indeed, in order to maintain a sustainable competitive advantage, the strategic capability to host ambidexterity over time is important. The organization must promote a common identity and success in one domain that might be misaligned with the new strategy. That is, the exploratory strategy might drastically differ from the established business. Nevertheless, the managers need to promote and ensure that the company works according to objectives, in this case exploration and exploitation, respectively. Doing so leads the way towards a sustained organizational performance. (Smith & Tushman, 2005; O'Reilly & Tushman, 2013). Further, the positive effects of ambidexterity become more prevalent as the environment that companies operate in becomes more uncertain (O'Reilly & Tushman, 2013) These contradictory demands are

imposing new challenges on the top management teams leading ambidextrous organizations (O'Reilly & Tushman, 2013).

The structurally ambidextrous solution is well established and extensive research on the perspective of the top management has been done in existing literature. However, knowledge of the challenges from the perspective of the managers in the exploratory unit is limited. Thus, by studying the challenges encountered by the managers of the exploratory units we join a new field of research. In this thesis we take the perspective of the exploratory unit and propose the following research question:

RQ: What are the challenges encountered by the manager of the exploratory unit when delivering innovation?

In order to extend the understanding of the phenomenon and add more valuable insights to our research, we examine the following sub-question:

How does the manager of the exploratory unit handle the challenges?

In order to answer the research question, we draw on existing literature on the ambidextrous solution combined with literature on alternative innovation management tools, such as Lean Start-up and Design Thinking, as well as insights from the entrepreneurial orientation theory. Following, we analyze empirical data from in-depth interviews conducted in three different companies, all organized according to structural ambidexterity.

Our main findings demonstrate that the managers of exploratory units encounter various challenges when delivering innovation in structurally ambidextrous companies. We further observe that all three managers of the exploratory units rely on various alternative innovation management tools, adopt elements of entrepreneurial orientation and collaborate with external parties. These tools appear to allow the exploratory unit to continue delivering innovation, also when encountering significant challenges. In which circumstances and to what degree these methods are applied differs between the cases.

2. Literature review

In this section we review existing literature that is relevant to our research question. This includes literature on organization ambidexterity, innovation management tools, and EO.

2.1 Innovation and ambidextrous organizations

The ambidextrous model has gained enormous interest when it comes to solving the tension that arises in organizations applying exploitative and exploratory logics simultaneously. The ambidextrous organization efficiently generates income by managing today's business while also adapting to tomorrow's business opportunities (O'Reilly & Tushman, 2004). Further, ambidexterity can be described as a dynamic capability residing within the organization, that is the company's ability to integrate, build and reconfigure internal and external competencies to address rapidly changing environments. Thus, organizational ambidexterity is reflected in a complex set of decisions and routines, enabling the organization to sense and seize new opportunities through the reallocation of organizational assets (O'Reilly & Tushman, 2013). Some of the characteristics of an exploitation focused business logic include cost, efficiency, incremental innovation, low risk and top-down leadership. In contrast to this, the exploration focused business logic involves characteristics such as breakthrough innovation, growth, adaptability, risk taking, speed and visionary leadership (O'Reilly & Tushman, 2004). Thus, they are fundamentally different. Nonetheless, these days the ability to exploit alongside with exploring is increasingly crucial for companies' survival (Benner & Tushman, 2013).

There are three main approaches to ambidexterity. Firstly, simultaneous or structural ambidexterity, intends simultaneous use of exploration and exploitation, respectively, by using separate subunits within the company. This is continuously referred to as structural ambidexterity in this thesis. These separate units are held together by a common strategic intent and an overarching set of values, and targeted linking mechanisms to leverage shared assets. By forming separate units, this allows for different processes, structures and cultures to exist within the organization, all at the same time. Although the units operate differently, there is a tight link across the units on top management level aiming to manage the organizational separation. Hence, also in structural ambidexterity the key is leadership rather than structure (O'Reilly & Tushman, 2004; O'Reilly & Tushman, 2013).

Second, sequential ambidexterity is defined as temporal switching between exploration and exploitation and represents the view that companies can realign their structures to reflect changed environmental conditions or strategies. This theory is reflected in many early studies of organizational adaptation (e.g. 1997; Tripsas, 1997; Lovas & Ghoshal, 2000; Rosenbloom, 2000). This approach often focuses on large-scale examples with changes taking place over long periods and has been found to be more suitable in stable, slower moving environments (O'Reilly & Tushman, 2013).

Third, contextual ambidexterity refers to the behavioral capacity to simultaneously demonstrate alignment and adaptability across an entire business unit and the tension between exploration and exploitation is solved on an individual level. The key difference is that when it comes to contextual ambidexterity, the adjustment between exploration and exploitation is not made by units. The processes that enable this individual adjustment are never concretely specified, however, they involve promoting stretch, discipline and trust. An alternative way to conceptualize the term is to see alignment and adaptability as a function of culture that promotes both flexibility and control within the unit. Although the three models initially were proposed as three separate ways of organizational ambidexterity, there is evidence that all three have potential (O'Reilly & Tushman, 2013). However, considering the nature of this study, structural ambidexterity is the most relevant, and will be the focus in this thesis.

As mentioned, the essence of organizational ambidexterity is to be found in the ability of an organization to leverage existing assets and capabilities from the mature side of the business to gain competitive advantage in the new unit and reach sustained organizational performance (Smith & Tushman, 2005; O'Reilly & Tushman, 2013). Accordingly, as an organizational structure, ambidextrous organizations have shown to significantly improve company performance. Improvements have become evident when launching breakthrough innovation projects, when adapting to environmental changes, in long-term organizational efficiency, as well as in the existing day-to-day business (O'Reilly & Tushman, 2004; Smith & Tushman, 2005; O'Reilly & Tushman, 2013).

O'Reilly and Tushman (2004) argue that the improved performance is rooted in that structural ambidexterity allows for cross-fertilization among units while also preventing cross-contamination. Further, the effects of ambidexterity seem to increase as companies' environments become increasingly uncertain, indicating that ambidexterity would be more

successful today than ever before. However, not all companies attempting ambidexterity have been successful (O'Reilly & Tushman, 2013).

The uncertainty and rapidly changing environment that companies operate in today has resulted in an increased focus on open innovation. Open innovation is an innovation logic based on sharing information, innovation production and problem solving, and a sharp contrast to organizationally centered innovation logic focused on cost minimizing, local search, hierarchy, power and control of contingencies and extrinsic motivation. Thus, in this open context, variation, selection, and retention processes are all beyond the boundaries of the company and the organizing models are rooted in openness, sharing, choice, distance, low cost search, intrinsic motivation and communities.

Start-up companies today cooperate with diverse partners in all stages of the innovation process, using open innovation to leverage their resources at hand and open doors to opportunities, without a clear understanding of the potential future outcomes and benefits. Traditionally, well established companies have been careful when collaborating with external parties due to, for example, patents and trade secrets. Not engaging in this new type of collaboration leaves incumbent companies behind the competitive start-ups. Thus, if they do not adapt and instead keep their focus on incremental innovation and to keep trade secrets, incumbents might be outcompeted by entrants (Benner & Tushman, 2013). For the managers of the exploratory unit this trend potentially leads to additional challenges as pressure to adopt an open innovation logic might not be appreciated by top management. Thus, it might create additional tension in the interactions between top managers and the management of the exploratory unit. However, little attention has been drawn to how this affects the managers of the exploratory unit.

2.2 Leading ambidextrous organizations

2.2.1 Top management

In order to be successful, all company managers have crucial strategic roles they need to fulfill (Kuratko, Hornsby, & Bishop, 2005). There is a considerable amount of research that explores the roles of managers in facilitating successful innovation attempts, especially in traditional organizational structures. For example, top-level managers have been told to provide a vision, build organizational structure, establish human resource management

practices for hiring the "right" employees, as well as balance exploration and exploitation (Kuratko et al., 2005; O'Reilly & Tushman, 2004). Middle-level managers' task is to enable information and resource flows, advocate innovative initiatives, as well as to motivate and educate employees from lower organizational levels (Kuratko et al., 2005). First-level managers' role is to implement innovation initiatives coming "from above", as well as undertake innovation "from below" by experimenting and pursuing opportunities (Covin & Slevin, 2002; Dess et al., 2003; Kuratko et al., 2005; O'Reilly & Tushman, 2004).

However, ambidextrous organizations are unique in terms of structure, and management theories based on traditional structures are not directly relevant in explaining the management roles in such cases. O'Reilly and Tushman (2011) provide top-level management insights into how an ambidextrous organization should be managed. Top management should provide a common vision and values, promote both the exploratory and exploitative sides of business, and ensure the presence of top management integration in the separate architectures for the exploratory and exploitative units. Additionally, top management handles the tension that arises due to having two radically different organizational architectures, and ensures that the exploratory unit managers' voice is heard when it comes to resource allocation decisions taken at the top management level.

Top management teams leading ambidextrous organizations attend to two sets of contradictory demands simultaneously because exploitative and exploratory activities form the foundation of ambidexterity. These inevitable inconsistencies create fundamental challenges for the organization and the top management team because the separate units require different strategies, structures, processes, and cultures. Managing an ambidextrous organization requires the ability to understand and to be sensitive to the needs of very different kinds of business (O'Reilly & Tushman, 2004). Managers that can "combine the attributes of rigorous cost cutters, and free-thinker entrepreneurs while maintaining the objectivity required to make the needed trade-offs, are rare but essential for the ambidextrous organization" (O'Reilly & Tushman, 2004).

Indeed, the degree and success of organization's ambidexterity depends on its managers (Mom, Van den Bosch & Volberda, 2007). Previous research indicates that at company or unit level, exploration and exploitation largely originate in the exploration and exploitation activities of their managers (e.g. Vera & Crossan, 2004; Burgelman, 1991; Tripsas & Gavetti, 2000; Tushman & O'Reilly, 1996). Due to top management teams serving as the

point of integration between different agendas, this is not particularly surprising (Smith & Tushman, 2005).

There are several theories on how to manage this point of integration. Smith and Tushman (2005) have identified a set of top management team conditions that facilitates a team's ability to engage in paradoxical cognitive processes to improve the existing product performance, and the innovation performance. They argue that conflicts and inconsistency between existing products and innovation cannot be eliminated. Instead, paradoxical frames can be applied. Paradoxical frames can be described as mental templates to which managers turn to accept the simultaneous existence of contradictory forces. Firstly, by creating a context that demands the articulation of goals for the existing product, paradoxical frames increase motivation, in both the exploratory and exploitative unit. Second, paradoxical frames are associated with reducing the sense of threat and fear, which leads to a positive conflict - this signals that managers expect both frames to succeed. Thus, sustained performance and balanced strategic decisions can be induced by attending to this strategic contradiction, allowing teams to embrace them rather than avoid the contradiction (Smith & Tushman, 2005).

Managers can engage in a high degree of both, exploitative and exploratory activities, thus, they are not mutually exclusive on a managerial level. However, what activities managers do take on can depend on their knowledge inflows. Top-down knowledge inflows tend to positively correlate with a manager's exploitation activities, while bottom-up and horizontal knowledge inflows positively correlate with exploratory activities (Mom et al, 2007). Mom et al., (2007) show that the more a manager acquires both top-down and bottom-up or horizontal knowledge inflows, the higher the degree of both exploration and exploitation activities the manager may engage in. In line with structural ambidexterity (e.g. Tushman & O'Reilly, 1996, Benner & Tushman, 2013), managers of the exploratory unit would benefit from bottom-up and horizontal knowledge inflows (Mom et al., 2007).

2.2.2 The management of the exploratory unit

Tushman and O'Reilly (1996) state, that the exploratory unit is usually small, decentralized and characterized by a culture that emphasizes autonomy in order to give employees a sense of ownership and make them more responsible for their performance. Due to operating under high uncertainty, a culture of risk-taking and experimentation is also encouraged and supported. Such a culture would be difficult to maintain in a big, centralized organizational

unit. Although these cultural elements are often observed in the entire ambidextrous organization, it is common that the exploratory unit puts much stronger emphasis on these elements than the exploitative unit. The reward system is consistent with the nature of the unit, and the rewards are given for demonstrating results and risk-taking behaviors (Tushman & O'Reilly, 1996).

Chen (2017) states, that because of the low success rates of exploratory activities, the company as a whole and especially the exploratory unit need to have a high tolerance for failure. In addition, Chen (2017) recommends the exploratory unit to rely on emergent strategies, which means that rather than following specific strategies and pursuing pre-determined goals, the management should explore for possibilities and allow strategic directions to emerge on their own. These units should also offer incentive structures that accept early failures and are focused on long-term success, as well as implement search-oriented project management tools like Lean Start-up, Design Thinking, Effectuation approach, and similar. These tools are useful since exploratory projects are characterized by a significant degree of ambiguity when it comes to measuring their success and defining a plan to reach a successful result (Chen, 2017).

Probst, Raisch and Tushman (2011) state, that "middle managers' role in ambidextrous leadership is to lead the new business activities by crafting emotionally engaging visions while staying focused on the execution". Although relevant for all leaders and managers to varying degrees, Probst et al. (2011) emphasize that it is especially important for the exploratory unit's managers to balance between management and leadership approaches in order to successfully start new businesses in established companies. According to Probst et al. (2011), a managerial approach is characterized by stability, control, formal processes, and clear targets. It is important for the manager of the exploratory unit to adopt this role in order to establish a stable and efficient working environment, act fast, achieve goals and perform under time pressure.

On the other end of the spectrum lies leadership, which is characterized by an innovation-oriented outlook, opportunity-seeking and a strong vision (Probst et al., 2011). Leaders are known to give their subordinates autonomy and create a sense of purpose and belonging to the group. A leadership approach is crucial for facilitating an environment that supports creative behaviors, such as idea generation, which are at the core of generating innovative solutions. It is common for the managers of the exploratory unit to switch between the management and leadership roles according to the stage of the innovation process and the

circumstances of the project (Probst et al., 2011). For example, during the initial project stages, a leader might be needed in order to create an innovative business model. In later stages the team needs a manager to optimize day-to-day activities and to meet important deadlines. If special circumstances arise, the need to engage in leadership activities might appear once again. This highlights that the managers of the exploratory unit encounter the challenge of not only balancing the contradictory management and leadership roles, but also repeatedly switching from one role to the other (Probst et al., 2011).

Charue-Duboc et al. (2010) define that the managers of the exploratory unit are responsible for managing cognitive, organizational, and strategic aspects of the exploratory process. In other words, it involves managing knowledge, organizing the unit in order to facilitate exploration both within and outside the company, as well as creating value. The authors also argue that "managing an exploratory process means defining an exploratory field and leading various experiments within this field, closely linking market knowledge and technological knowledge" (Charue-Duboc et al., 2010).

There is a gap in our understanding of the exploratory unit, the challenges encountered by its management, and how the manager of said unit handles the challenges. In order to further explore the phenomena, we apply the theory of EO, and use the insights from various innovation management tools as a guide for our research.

2.3 Entrepreneurial Orientation

Adapting to change in the competitive environment, actively pursuing new ventures, and undertaking successful innovation is a concern for all companies. According to Avlonitis and Salavou (2007), it can be seen, that along with the expansion of the entrepreneurship paradigm, organizations have come to behave in an entrepreneurial manner. These manners are reflected by entrepreneurial orientation (EO), a concept which refers to the capability of companies to undertake aggressive initiatives in order to alter their competitive position. EO has several profiles, which reflect the amount of risk taking and competitive aggressiveness. For example, companies that prefer less risk and do not engage in actively seizing opportunities and experimenting are deemed as more conservative, whereas companies on the opposite side of the spectrum – as entrepreneurial or pioneer companies (Avlonitis & Salavou, 2007).

EO has five dimensions: innovativeness, proactiveness, risk-taking, autonomy, competitive aggressiveness. Innovativeness refers to the company's propensity to engage in creative behaviors and experimentation through the introduction of new products and services. Proactiveness is the combination of all opportunity-seeking and forward-looking activities, that are undertaken in order to launch new products and services ahead of competition and predict future market conditions. Risk taking refers to the propensity to invest in innovations under substantial uncertainty, and venture into the unknown. Lumpkin and Dess (1996) suggest, that autonomy reflects the level of independence of the leaders of the exploratory units or teams, directed at introducing and overseeing innovation projects and initiatives. Competitive aggressiveness characterizes the intensity of the company's actions targeted towards outperforming its competitors and defending its market position by strongly responding to potential threats (Rauch, Wiklund, Lumpkin & Frese, 2009).

Research shows that EO has a positive relationship with radical product innovation and successful innovation in companies (Salavou & Lioukas, 2003). Although EO is most commonly discussed at company level, Lumpkin and Dess (1996) argue it is applicable at business unit level. In this study we direct the discussion of EO at unit level, focusing on EO elements present in exploratory units. This allows us to build the base of our research into the challenges encountered by the manager of the exploratory unit and how the manager handles the said challenges.

2.4 Innovation management: tools and challenges

Innovation is a process that consists of several steps, we believe that each of the steps is subject to different management challenges, and cooperation between the exploratory unit and top management plays a crucial role throughout the entire journey.

Therefore, we examine various innovation tools used to manage innovation. Traditionally, models such as Stage-Gate have directed innovation processes in companies. According to Edgett (2015), the Stage-Gate model consists of two main components: Stages and Gates. The project manager moves the project through each stage, in which information is gathered. Cross-functional teams work on activities specific to the particular stage, and the entire process is designed with a goal to help move the project to the next decision point. In the Stage-Gate model there are five stages in addition to idea generation (see Table 2.1.). After

each stage, the project goes through a gate, which determines whether or not the company will continue to invest in the project.

Stage	Description
Scoping	This stage refers to preliminary data gathering and research, it is usually quick and inexpensive.
Building the Business Case	This is the more detailed research stage, which leads to the definition of the product, justification of the project, financial viability, and a plan for development.
Development	This stage involves developing the design and the actual product, as well as planning for full scale production.
Testing and Validation	Testing and validation refers to the experiments and trials undertaken in the lab and marketplace with a goal to confirm the viability of the product and develop the marketing and branding strategies.
Launching	This stage involves commercialization and start of full-scale production.

Table 2.1. The stages of the Stage Gate model (Edgett, 2015)

Traditional innovation management tools like the Stage-Gate model have been criticized for their focus on errors, which likely results in dismissal of potentially radical innovations and undermining of creativity, as well as a lack of continuous feedback from the customers that would ensure the company is "doing the right projects" (Buggie, 2002; Kline & Rosenberg, 2009). Manoochehri (2010) states that another source of challenges is innovation measurement due to its complex nature. In practice, only 46 percent of managers track innovation to the same extent as other business functions (Andrew, Haanaes, Michael, Sirkin & Taylor, 2009). Ries (2011) believes, that innovators struggle with gathering information from their prototypes and effectively learning from their mistakes. Alternative innovation tools like Lean Start-up and Design Thinking claim to provide the missing pieces and to solve some of the problems and challenges in innovation, which traditional frameworks fail to do.

Lean Start-up is a feedback-based tool, which is based on optimizing the innovation process as much as possible by removing unnecessary resources, activities or expenses (Mueller &

Thoring, 2012). It consists of three main steps, which are referred to as the build-measure-learn cycle, are summarized in Table 2.2.

Stage	Description
Build	The main objective is to create the so-called 'Minimum Viable Product' (MVP). This is the first version of the product that includes the most crucial features, which is used for gathering information from customers. Instead of relying on assumptions from interviews, questionnaires and other information sources in order to determine the willingness to pay and demand for the product, the customers are often charged already at this stage of the project.
Measure	At this stage data gathering takes place by interacting with customers. An important insight from Lean Start-up is that the Innovation Accounting method is used when traditional metrics are not viable. Instead of examining gross figures and benchmark data, it is recommended to measure the performance of the product in different customer groups separately (cohort analysis) and avoid the so-called vanity metrics.
Learn	At this stage the company decides whether to proceed with the existing strategy or change it by switching target customers groups, adjusting the pricing strategy or the technology, which is referred to as pivoting. (Blank, 2006; Osterwalder & Pigneur, 2010; Ries, 2011).

Table 2.2. The stages of the Lean Start-up model (Blank, 2006; Osterwalder & Pigneur, 2010; Ries, 2011)

Another alternative commonly used innovation tool is Design Thinking. This method emphasizes empathy with the customer, defining the correct problem, generation of ideas, building prototypes, and testing them in order to learn (Mueller & Thoring, 2012). According to Mueller and Thoring (2012), Lean Start-up and Design Thinking are both highly focused on developing desirable, viable, and feasible ideas, and rely on a user-centered approach in order to enhance their products. In addition, both methods gather user feedback in order to optimize the process in the early stages, and emphasize the "fail fast" concept, which encourages project teams to identify flaws and mistakes in their ideas fast in order to save time and financial resources.

Mueller and Thoring (2012) argue, that unlike Design Thinking, Lean Start-up applies pivoting even before a prototype is created. In addition, Design Thinking has a broader scope and uses sophisticated insight gathering methods, while Lean Start-up is mainly targeted towards start-ups. Lean Start-up begins with a business idea and is based on quantitative evaluation metrics, in contrast to that Design Thinking starts with a challenge and relies on qualitative metrics (Mueller & Thoring, 2012).

Reviewing existing literature on organizational ambidexterity, EO, as well as insights from innovation management tools provides a structured basis for detecting areas in which the management of the exploratory unit might encounter challenges and how they handle them. Table 3.1. presents a summary of the literature discussed in this section.

Theory	Summary section	Authors
Ambidextrous organizations	Simultaneous focus on exploitative and exploratory activities within the same organization	O'Reilly & Tushman, (2004, 2013), Benner & Tushman (2013), Smith & Tushman (2005)
Leading Ambidextrous organizations	The primary focus of top management should be to provide common vision and values, promote both sides of business, ensure top management integration in the separate architectures, manage tension that arises from the differences in the two units, and ensure that the exploratory unit managers' voice is heard in resource allocation decisions. The manager of the exploratory unit should pay special attention to mediating between the conflicting leadership and managerial roles.	Mom et al. (2007), Tushman et al. (2011), O'Reilly & Tushman (2011), O'Reilly & Tushman (2004), Probst et al. (2011)
EO	EO reflects companies' ability to undertake aggressive initiatives in order to alter their competitive position. It has five dimensions: innovativeness, proactiveness, risk-taking, autonomy, and competitive aggressiveness. EO is positively correlated with successful innovation efforts.	Avlonitis & Salavou (2007), Lumpkin & Dess (1996)
Innovation management tools	The Stage Gate model is a traditional innovation management tool, where projects are moved through	Edgett (2015), Ries (2011), Mueller &

stages and decision points. It is a widely criticized   Thoring (2012)
method due to its complex nature and focus on errors.
Lean   Start-up,   Design   Thinking   are   alternative
innovation management tools that emphasize interaction
with   the   customers,   process   optimization   and   cost
reduction   through   prototyping,   testing,   and   quick
learning.

Table 3.1. A summary of theoretical frameworks

3. Methodology

In this section we propose a methodological approach to be used in order to answer our research question. The section is structured as follows: we begin by defining the overall research philosophy and approach, then we present the research design and research setting, namely, the cases we research, and after that we proceed with a description of our data collection and analysis processes. Additionally, we discuss the research quality, ethical considerations and challenges in this study.

3.1 Research Philosophy and Approach

This research is carried out based on qualitative research methods. Boeije (2010) states, that qualitative research consists of 3 elements: 1) Looking for meaning; 2) Using flexible methods that enable contact with informants; 3) Providing qualitative findings.

Ponelis (2015) states, that "qualitative research produces rich, contextual, and generally unstructured, non-numeric data", and involves interacting with the informants in a natural setting. According to Jemna (2016), at the beginning of a qualitative research process one starts with the assumption that there are various phenomena that cannot be measured in a quantitative manner. It is appropriate to rely on qualitative research when the researcher's aim is to obtain in-depth insights into matters like the thought process, values, and feelings of the person.

The goal of qualitative research is to find and understand the meaning people assign to their "social worlds" (Boeije, 2010) Often this means that qualitative research is focused on finding this meaning for the people involved, which requires the researcher to collect data that reflects this, and focus only on what is relevant. When people discuss their "social worlds", they share opinions, thought processes and insights. This implies that a lot of the data is already interpreted by the informant, and the researcher must be able to navigate that and provide their interpretation of how the informants understand their own situation. In addition, qualitative methods provide a considerable amount of flexibility and allow the researched to communicate with the people involved enough to understand what is going on in the field (Boeije, 2010).

In a business context, qualitative research methods allow to understand the company, its competitors and other factors that are difficult to quantify. Qualitative research also provides context, and in-depth exploratory insights (Jemna, 2016). That often requires that the researcher asks "why" and "how" questions, which, according to Rowley (2002), are best answered using a qualitative research approach. These elements are relevant for our research because in order to detect and understand the challenges faced by the exploratory unit's managers, we need to interact with the interviewees, ask "how" and "why" questions, understand their perspective, as well as remain open and flexible.

During fieldwork of qualitative studies, it is important to employ an open and flexible mode of inquiry, and have a close contact with the field, in addition, it is common have a need for continuous readjustments with regards to what the problem is. This is due to the emerging nature of the method. (Boeije, 2010).

The data produced by such methods are abundant and descriptive, and require appropriate data analysis tools in order to provide results that contribute to existing knowledge and practical use. The researcher's task is to re-interpret the information provided by the informants while preserving its original meaning. This is done by analyzing the data, excluding irrelevant elements, selecting, interpreting and deciding how to communicate the findings (Boeije, 2010).

An important attribute that allows us to broaden our view on the research question is triangulation. In our case, we use data and investigator triangulation, in other words, we collect data at different times, contexts and from different employees, as well as rely on different interviewers (Flick, 2014). It enables us to look at the issue from multiple perspectives and minimize subjective biases.

In our research, we rely exclusively on qualitative research methods due to the exploratory nature of the study. During the research process we continually adjust our literature review, interview guide, and redefine the problem based on the insights we get from the field.

The study is aimed at helping practitioners and researchers gain more insights into the challenges faced by the managers of the exploratory unit in delivering innovation projects and how they ought to handle these challenges. It will help to fill some of the research gaps in ambidexterity literature.

3.1.1 Research approach

There are two relevant approaches to reasoning that result in generation of new information and knowledge: inductive and deductive reasoning. Eisenhardt and Graebner (2007) state, that both modes of reasoning mirror each other, where inductive logic enables building theories from case data, while deductive logic enables testing existing theories. In qualitative research inductive reasoning is common, which implies that a phenomenon is studied in order to use the findings as the foundation of a new theory. Hyde (2000) states, that inductive methods are often used in qualitative research because the theory developed through this method tends to be untested. Researchers often have an idea of what data will be gathered, and what the analytical framework will look like. However, the researched must show improvisation, creativity and flexibility throughout the entire research process (Boeije, 2010).

Our preliminary research process in which we detect the research gap and approach the interviewees is based on deductive logics. When it comes to the data analysis, we employ a more inductive logics focused reasoning. This allows us to ask open questions, gain in depth insights into the research question, and uncover new phenomena. Finally, the discussion of our findings is based in both inductive analysis and comparing them to existing theories.

3.2 Research design

Dulock (1993) states, that research design is the plan created with a purpose of answering the research question. The goal in this study is to gain an in-depth understanding of the innovation processes enacted in the exploratory units of established companies. Thus, a *case study* is appropriate because it allows the researcher to explore innovation processes in their natural context. The nature of a case study considerably differs from that of an experimental study when the setting is not within a highly controlled context (Saunders, Lewis & Thornhill, 2016). Case studies are appropriate when studying phenomena that have not been researched and when a new perspective is needed (Rowley, 2002). An advantage of using a case study design is that it observes the problem in real life environment while taking into account the context of the situation, which allows to gain more knowledge about the topic than other research designs (Zainal, 2007). Overall, case studies are a viable alternative when obtaining data on a large sample size proves difficult (Zainal, 2007).

We explore our research question by studying the cases of three companies in the food, banking, and household and personal care products industries. Yin (2003) argues that multiple case studies are preferable to a single case study. In the establishment of new theories, multiple case designs provide more robust empirical results, improving the generalizability of the findings (Rowley, 2002). In addition, using multiple cases allows the researcher to perform a comparative analysis between the cases, highlight contrasts and similarities, as well as compare the phenomenon within a particular situation, as well as across different situations (Gustafsson, 2017). It appears likely that there is a considerable amount of diversity among companies when it comes to challenges and the needs of the exploratory division. Thus, by focusing on the exploratory unit in each of the cases and comparing them we deem a *comparative case study* design as an appropriate choice.

The research question we propose has not been extensively examined by previous studies, consequently, we adopt an *exploratory* research design. According to Wyk (2012), exploratory research designs are characterized by a lack of strict, formal structure and allow for a high level of flexibility. Boeije (2010) states, that this is crucial for study of exploratory nature because it allows to adjust data collection and data analysis to the findings as they emerge in the process.

To sum up, in order to gain in-depth insights into *what are the challenges encountered by the management of the exploratory division, and how they handle these challenges,* we employ a comparative, exploratory case study design.

3.2.1 Research setting

Presentation of the cases

This study includes three different companies that all have adopted a form of structural ambidexterity, where a separate unit is dedicated to exploratory activities. All three companies are based in Scandinavia, but differ in terms of size and ownership structure. The broad range of companies increases the potential of the study. We compare the challenges and opportunities and whether these aspects reoccur across companies.

Information about the cases has been collected in a combination from annual reports and information retrieved during the interviews and conversations with the companies. All company names and company data has been anonymized in this study to protect the interests of the companies. This also enables access to more detailed information that would otherwise not be available.

Case introductions

Care Inc.

The household and personal care products industry as part of the consumer goods industry is facing massive disruption. Companies face continuous challenges from abating industry growth, declining brand loyalty and a rise of unconventional competitors. Companies cannot afford to ignore these massive shifts in technology, consumer preferences, sales channels, marketing approaches, and barriers to entry.

To differentiate themselves from competitors and remain competitive, companies need to innovate beyond the established business (Caldbeck, 2016). Despite the importance of innovation, few companies offer new and viable business solutions that drive value for their consumers and shareholders. Being a well-established brand with a long history is no longer enough for security and prosperity, and some of the world's largest brands are facing an alarming situation. Instead, entrants have taken over massive ground to the loss of incumbents (Deloitte, 2016). Therefore, it is exceptionally valuable to include a company like Care Inc. in this study.

Care Inc. is one of the leading suppliers of household and personal care products in the Nordic and Baltic regions. Care Inc. is part of a multinational company group with a substantial market share in the Scandinavian country it is based in. We are narrowing down on the area of home and personal care and all four interviewees are working in this company. As a consequence of the changing market trends described previously, sales have been dropping over the last few years.

The home and personal care division operates as a separate company and has its own top management team, including a CEO. The exploratory and exploitative units in the company of home and personal care are divided according to structural ambidexterity. The company consists of around 1500 employees, out of these four people work in the exploratory unit.

The innovation in the exploitative unit is focused on geographically expanding existing product portfolios and other incremental improvements and innovation. The exploratory unit pursues mainly radical innovation by exploring new types of business models and exploration beyond the established business. The initiatives in the exploratory unit can significantly cannibalize on the operational unit and lead to lowering margins on some of their products. The different units operate distinctly separate but benefit from sharing ideas

and processes. Hitherto, a couple of innovation initiatives from the exploratory division have developed into independent start-ups.

Bank Inc.

Recently the banking industry has experienced a set of changes in its micro and macro environments (Swacha-Lech, 2017). Changes in the micro environment include a rise of new client expectations and strong competition from financial technology (FinTech) companies. Changes in the macro environment refer to the overall digitalization of the economy, as well as the introduction of new regulations and requirements, such as Payment Services Directive (PSD2) and Payment Accounts Directive (PAD). The ongoing digitalization trend in particular has initiated changes in customer behaviour and preferences, companies' business strategies and business models, as well as internal organization and IT (Schmidt et al, 2017).

Bank Inc. is an independent and local bank based in a Scandinavian country. It is well established and has a long history in the local community and is an important financial partner. Despite its small size, alongside its traditional banking business Bank Inc. owns subsidiaries that provide additional services in the financial industry. As part of this research we talked to two interviewees who are working on an innovation project in one of the subsidiaries (further referred to as Subsidiary Inc.), as well as the manager of the exploratory unit.

Bank Inc. has formed a separate exploratory unit. After scrutinizing the organizational set up it became evident that said unit is not a pure exploratory unit, but a unit with divisions that work with digitalization and development of other established innovation projects. However, within this unit reside exploratory, and even disruptive divisions. A project that is part of this unit includes the disruptive Project X. From here on we will refer to this unit as the exploratory unit. The unit consists of approximately 40 people divided into cross-functional teams, and includes the IT, customer service and marketing divisions. This year alone the unit has been working on 22 projects, 18 of which have been focused on digitalization and automation.

Project X is the result of an innovative process started in Subsidiary Inc., and today the project operates as a legally separate company. The company was launched in 2018 and quickly became a significant player in the area it was launched. Project X focuses on efficient, financially sound and digital services. It managed to disrupt the market in the country the company operates in and significantly lower the cost of an existing service. Bank

Inc. (including Subsidiary Inc.) is organized according to structural ambidexterity with elements of contextual ambidexterity. The company carries out and continually improves its traditional business operations while simultaneously having a division that works on innovation projects. However, this changes every six months as a result of project rotation.

Due to the immense success some of the company's innovation projects have brought and its unique ambidextrous structure, we consider Bank Inc. to be an interesting case that will provide valuable insights into the perspective of the exploratory unit when it comes to the challenges they encounter in the innovation process.

Food Inc.

The food industry is facing dramatic change and the specific sector of the industry is facing substantial challenges. Consumer preferences and habits are changing, now sustainability plays an increasingly more important role in their daily lives. The vegetarian trend is prominent, and many meat eaters have reduced their meat intake (Hallberg, 2016). Consumers have a desire to "be the change", which has led to an increased demand for locally made food products to reduce transportation emissions, and products with lower environmental footprint (Financial Times, 2018). However, environmental sustainability is not the only important factor influencing consumer preferences. Showing consideration to farmers' and animals' working and living conditions has become increasingly important (Gregersen, 2016).

The shifting trends are especially important for certain areas in the industry as some goods are highly price sensitive. With a considerable focus on sustainability and quality, prices of these goods inevitably increase, which leads to a lower consumption. The global pressure to reduce carbon footprint forces the food industry to rethink the core of its business. Different substitutes and complements are on the rise, both in Scandinavia and elsewhere globally (Hallberg, 2016). Thus, the external environment that Food Inc. operates in has changed substantially. This affects their competitive position and need to innovate (Annual report, 2017).

Food Inc. is one of the leading suppliers of food in the Scandinavian country it is based in, and supplies some of the major brands. The business idea is to sell farmers' produce, always with the financial interest of the farmers in focus. Core activities consist of the entire value chain including packaging, marketing and sales activities. As a result of shifting consumer

trends and decreasing demand, Food Inc. has been doing poor financially. The exploratory unit was created as a response to this circumstance.

The exploratory unit consists of several project managers who initiate and lead different innovation projects and exploratory activities. The project managers select employees from the exploitative unit to work with them in the projects. The R&D and Innovation board is the central decision organ when it comes to innovation in Food Inc. The exploratory division is focused on growth from radical and strategic innovation, and the projects often go beyond the established business. As part of this research, we interviewed the manager of the exploratory unit and a project manager working in the exploratory unit.

As described above, the research setting of this study is based on three established companies, all of which have formed a separate unit aimed at increasing exploratory knowledge and undertaking exploratory activities today or in the future. Despite operating in different markets, all companies have established exploratory units within the past few years as a way to adjust to the changing market trends and consumer demand.

There are several differences between the three cases in addition to industry differences. All three companies are different in terms of size: Care Inc. has the highest number of total employees, followed by Food Inc. and Bank Inc., accordingly. In Food Inc. and Care Inc. the exploratory divisions are a small part of the company structure, while in Bank Inc. the exploratory division takes up a substantial part of the organization. In addition, the internal organization within units is approached differently in all three cases.

3.3 Data collection

Our research was carried out with the assistance of FOCUS, a research program oriented towards the development of organizational solutions. Our supervisor, Professor Inger G. Stensaker provided important contacts, including Geir Håbesland, an advisor and General Manager at Brandgarden, who helped us both during the initial research and during the interviewing process. This support was fundamental in conducting our research.

3.3.1 Primary data

The primary data in this study was obtained through nine qualitative individual semi-structured interviews: four in Care Inc., three in Bank Inc., and two in Food Inc. According to DiCicco-Bloom and Crabtree (2006) semi structured interviews involve a set of open-

ended and theory-driven questions, where other questions emerge from the dialogue between the interviewer and the interviewee. While open-ended questions are focused on the knowledge possessed by the interviewee at that moment, and theory-driven questions are rooted in literature (Flick, 2014), the individual in-depth interviews often allow the interviewer to explore social and personal matters (DiCicco-Bloom & Crabtree, 2006).

We developed an interview guide with open-ended questions that were intended to facilitate the dialogue between the interviewees and the interviewers. The structure of the interviews was flexible, and the guide was adjusted to each informant throughout the interviewing process. The interview guide is presented in Appendix A.

All interviews were conducted in person and recorded, each lasted one to one and a half hour. The interviews in Care Inc. and Food Inc. were conducted by us and Geir Håbesland, interviews in Bank Inc. were conducted by us. Before the interviews all interviewees were asked to sign a FOCUS consent form (see Appendix B), which included basic information about the project, confidentiality agreements, as well as the usage of interview data.

3.3.2 Secondary data

As our secondary data, we used various documents such as interview notes, annual reports, company presentations, LinkedIn profiles, and websites. Flick (2014) states, that documents are an instructive source of data that are used for specific practical purposes and serve as an addition to other forms of data. We analyzed documents by selecting the information that is either directly relevant to our research or helps us extend our understanding of the cases. For example, annual reports and company websites were used in order to research the organizational structures and relevant business information about the cases. LinkedIn was used in order to confirm the positions and professional history of the interviewees. Interview notes were used to facilitate the understanding of the interview data and assist with the identification of core concepts.

3.3.3 Sampling

In order to identify both the relevant companies and interviewees, we used purposive sampling as it aids in the identification of information-rich cases related to our area of interest (Palinkas et al., 2013). Flick (2014) states, that purposive sampling involves selecting cases according to specific criteria, for example, extreme or typical cases. We selected interviewees who work closely with innovation in the exploratory unit, or in close

relation to it. In order to gain more diverse insights, we also interviewed several individuals in the management teams of the exploitative units.

The list of interviewees and information on their backgrounds is presented in Table 3.2.

Company	Interviewee Position	Description
Care Inc.	Director of Marketing and Innovation	The Director of Marketing and Innovation is in charge of innovation in the exploitative side of the business, and in addition is part of top management. They have been in the company for one and a half years and their main task has been to challenge the existing way of working in Care Inc. and to transform how the innovation unit in the exploitative business division operates.
	Project Manager	The Project Manager works in the exploitative division, has been in Care Inc. since the beginning of 2014, and is responsible for concept development, marketing, launching, and managing the projects in later stages.
	Director of New Business and Innovation	Director of the New Business and Innovation unit is in charge of the exploratory unit. Additionally, they are part of the top management team, and report to the CEO. The Director is focused on how Care Inc. can disrupt their established business. Temporarily, during a transition phase the Director was both the Director of the New Business unit and the Marketing Director.
	Manager of New Business and Innovation	The Manager of New Business and Innovation often works as a project manager for exploratory activities in said unit.
Bank Inc.	General Manager	The General Manager is in charge of one of the projects in the exploratory division and has been working in the company for 11 years.
	Project Manager	The Project Manager has been working in Subsidiary Inc. for two years, and mainly works with developing and implementing digital solutions, as well as marketing.

	Innovation Director	The Innovation Director has been working in Subsidiary Inc. for three and a half years and is in charge of the Innovation Division, while being part of the top management. Additionally, the Innovation Director is responsible for the strategy, business development, and IT areas in the company. As part of the innovation initiative, the Director works with digital channels, customer insights, and the marketing division.
Food Inc.	Innovation Director	The Innovation Director is in charge of the exploratory unit and, in addition, is part of the top management team and the R&D and Innovation board. One of the Innovation Director's main tasks has been to change the course of Food Inc. to a more innovative one and they have started several companies while working in Food Inc. The Innovation Director has a long history in Food Inc.
	Innovation Project Director	The Project Manager has worked primarily with the Stage Gate model in their projects. The Innovation Project Director has a long history in Food Inc.

Table 3.2. Overview of interviewees.

3.4 Data analysis

3.4.1 Transcription

All the interview data were transcribed in order to enable interpretation at later stages. Four criteria have been attributed to transcription quality: manageability, readability, learnability, and interpretability (Flick, 2014). This implies the transcripts should be easy to read and oversee (Flick, 2014). We transcribed the interview data word by word, and included standard practices, such as data indexing, turn taking, breaks, and notes for responses like laughter. A series of nicknames were developed for company and product names.

3.4.2 Coding

According to Boeije (2010), the main objective of this stage is to transform the data into comprehensible findings. This is done through sorting, naming, categorizing, connecting the

data, and interpreting it. At this stage we also read the transcripts multiple times, reflect, and create summaries for each case. In qualitative research findings can include both theoretical descriptions and interpretive explanations (Boeije, 2010).

We performed a code-based analysis. Coding involves assigning a short name or a phrase, which is referred to as a "code", to data segments. The purpose of a code is to summarize the core theme or topic of the segment. (Boeije, 2010). In this study we employed 3 types of coding: open, axial, and selective.

Open coding

According to Strauss & Corbin (2006) (as cited in Boeije, 2010), open coding involves "breaking down, examining, comparing, conceptualizing and categorizing data". The main stages of open coding involve reading the document line by line, determining the start and end of a fragment, assigning an appropriate code to the fragment, and comparing different segments. Open coding is flexible and at this point little attention is paid to filtering out data that is relevant to the research question. An example of open coding can be seen in Figure 3.1.

Figure 3.1. Example of open coding. Text is read line by line, divided into detailed sections and assigned a short phrase or sentence.

Axial coding

The purpose of axial coding is to determine the dominating themes and categories, decide which segments are irrelevant, reorganize the dataset, and detect the specific properties that characterize categories (Boeije, 2010).

The main stages in axial coding include reviewing and processing existing codes, merging them if necessary, comparing existing codes, establishing main categories and subcategories,

as well as continuing to think about the data and codes (Boeije, 2010). An example of axial coding can be seen in Figure 3.2.

Figure 3.2. Example of axial coding. Text is divided into sections according to dominating categories and themes, each assigned a code that captures the main category and subcategory.

Selective coding

Selective coding is the final stage of the coding process, the main goal is to make connections between categories, compare findings to existing literature, see the full picture, as well as answer the research question (Boeije, 2014). In order to identify on the key findings, Boeije (2010) suggests to focus on the following elements: research question, literature, data insights, fascination and actuality in the light of relevant scientific discussions. At this stage we established the final struct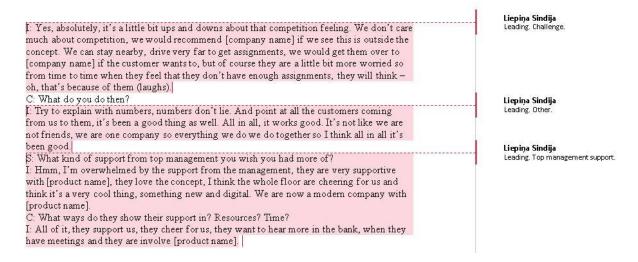ure of our data and findings, and formed preliminary connections to existing literature. This allowed us to draft a structure for the within-case analysis of our findings presented in the "Analysis" section.

Additionally, in the "Discussion" section we performed a cross-case analysis, which included contrasting and comparing the cases, and connected the findings to relevant literature while searching for possible explanations and insights from existing theories and empirical research. Lastly, we specified the contribution of our study to existing literature.

3.5 Research quality and methodology limitations

When determining the quality of research, *reliability* and *validity* are considered key metrics. Reliability refers to the extent to which the data collection techniques generate consistent findings. Hence, it shows how generalizable are the results. Validity refers to whether the

findings are actually about what they appear to be about, thus, whether the research indicates a causal relationship. Despite being efficient measures in determining the quality of research, validity and reliability are primarily applicable to quantitative studies and are less appropriate when applied to qualitative studies. Instead, validity and reliability are often assessed from a different paradigmatic view (Guba, 1981; Denzin & Lincoln, 1986; Kirk & Miller, 1986; Lincoln & Guba, 1984; Sinkovics, 2008; Walle, 2015; Saunders et al., 2016).

Guba (1981) argues that *trustworthiness* offers a better way to assess qualitative research, especially when processing interview-based data (Sinkovics, 2008). Trustworthiness is founded in credibility, transferability, dependability and confirmability (Lincoln & Guba, 1984). *Credibility* refers to whether the research is reliable and plausible (Guba, 1981) and is considered a parallel to internal validity (Guba & Lincoln, 1989). Guba (1981) defines *transferability* as the appropriateness of applying findings to other circumstances; it represents the external validity or generalizability (Crawford, Leybourne & Arnott, 2000). *Dependability* is the tendency of a research method to produce the same result when repeated on multiple occasions and is the criterion equivalent to reliability. Finally, *conformability* refers to the need to demonstrate that researchers' personal biases like motivation, priorities, and opinions have not influenced the data collection (Guba, 1981; Sandelowski, 1986).

In line with the research, we found that this study would benefit from appraising the metric of trustworthiness rather than validity and reliability.

3.5.1 Credibility

Credibility plays an important role in making sure that qualitative research can be considered fair and appropriate (Walle, 2015). Although there is no universal solution to credibility in qualitative studies, Guba (1981) identifies credibility as the degree to which research can be accepted as an accurate description of the informants (Lincoln & Guba, 1984). Credibility is viewed as the degree to which the research captures the "reality" of human life as it is perceived by the informants.

As a first step to ensure credibility, multiple sources were used (Guba, 1981). In analyzing the findings, we combined the large amounts of primary data with various secondary data. The secondary data was extensively reviewed in the early stages of the research, before entering the field and conducting interviews to build up a deep understanding and ensure suitability and legitimacy of the interviews. A certain level of flexibility in collecting

secondary data was adopted to ensure that unforeseen directions and research gaps arising in the interviews were accurately accounted for in the study. This ensured a higher degree of correctness in representing each informant's subjective "reality".

Throughout the literature reviewing process numerous theories were discussed and investigated to ensure a thorough search for explanations (Guba, 1981). Several informants with different positions and roles in their respective companies and units were interviewed in each company, establishing a multitude of perspectives of the same company, units and events. Although each subjective reality is sought, information from several informants reduced the risk of collecting opinions rather than a broader trend, which is important in order to accurately interpret the feelings, actions, and motives of the informants (Walle, 2015).

To further increase the credibility of the study, participant verification was adopted. Participant verification is a process that can increase credibility by allowing informants to review and comment on the text (Guba, 1981). In the process the transcriptions and findings were sent back to the informants to confirm that they accurately portrayed the insights of the informants as they experienced them. The informants did have comments on said insights, to which findings were amended. Due to subjective feelings and perspectives, different versions of the "reality" can exist and collecting data from multiple sources according to the triangulation process within each company helped in portraying the most accurate reality of the described events (Saunders et al., 2016).

The interview guide was developed well before the interviews took place. Because qualitative research methods offer less control over subjects and environments where observations take place, this was important. Although the conducted interviews took place in a considerably open setting and with space for the interviewees to create their own wording, the interview guide was a solid foundation to offer more control over the topics and the environment where the interviews took place (Walle, 2015). This helped to minimize discussion of subject areas that had no relevance to the research question.

3.5.2 Transferability

Transferability refers to the ability to apply the findings beyond the specific situation they are derived from. The broader the range of application, the greater the value of the research (Guba, 1981). Conducting research in a unique naturalistic setting causes the process of generalization to become very difficult. However, direct applicability is not the goal (Walle,

2015). Instead, the investigators ought to provide sufficient information, enabling the reader of the study to take independent decisions about possible applications of the study's findings (Guba, 1981).

The exploratory and partially inductive nature of this study is aimed at maximizing the range of information covered rather than ensuring representativeness and applicability to situations beyond the studied ones. The informants were carefully selected to ensure that they had relevant information about the management of the exploratory division and activities. The information provided by the informants was carefully examined. In other sections, such as the Research Setting and Sampling, the background of the companies and informants has been thoroughly explained to provide as much context as possible. This helps the reader to apply the findings to other settings. Further, contrasting informant responses from diverse positions in the exploratory unit further improves external validity.

3.5.3 Dependability

Dependability refers to the tendency of the research method to produce the same results if repeated on multiple occasions. Some variation is allowed, but the key factor is that on a considerable number of occasions the findings are notably similar (Guba, 1981). In order to assure reliability, it is important to keep the research procedure constant when the research design is implemented (Walle, 2015).

Thus, an important factor in increasing dependability has been the interview guide that was used as the basis throughout the interviews (see Appendix A). While fieldwork in qualitative studies is complicated by a wide variety of unexpected variables, the predetermined list of interview topics that the interview guide assisted with, significantly increased the dependability. Nonetheless, meaningful fieldwork emphasizes learning from informants rather than controlling them (Walle, 2015). In order to embrace the learning process throughout the interviewing process and uncover essential information, the interview guide was revised during the course of the study.

Dependability is further strengthened by comparing one successful innovation process with a failed process during the interviews. Additionally, a thorough documentation of all phases of the research process is outlined. We acknowledge that all three companies in this study is are based in Scandinavia and thus cannot represent a more international view of the innovation processes. However, taking advantage of the uniqueness of a situation is also considered as dependability-enhancing (Guba, 1981).

3.5.4 Confirmability

Guba (1981) emphasizes the importance of minimizing the influence of investigator's biases such as motivation, priorities, and opinion, on data collection. Guba and Lincoln (1985) find that a substantial part of creating grounds for an in-depth interview is to create a sense of familiarity and intimacy between the interviewer and the informant. The intimacy represents a risk of the informant losing objectivity. However, being aware of this risk before the interviews minimizes the risk of losing objectivity (Walle, 2015).

Further, a clear research design is followed, and findings are supported with direct quotes from informants. The primary contact person of the companies was present at the majority of the interviews, offering additional objectivity. Our supervisor provided the help and assistance as necessary, especially in the interviewing process and the process of analyzing the findings. This increases the transparency of the study.

Consent agreements were signed by the informants. This minimizes the risk of withholding information due to lack of confidentiality. However, there is a possibility that some information was withheld due to lack of trust or other reasons.

3.5.5 Ethical considerations

Most ethical concerns that have the potential to arise during specific stages of the research process can be predetermined and dealt with beforehand. With a focus on data collection from interviews, consent is especially important (Saunders et al., 2016). As stated previously, all informants signed an agreement of consent and confidentiality. By using a formal, written agreement we ensure the highest level of consent where the informant's consent is given freely and based on complete information about the participation rights and use of the data (Saunders et al., 2016).

Furthermore, all data is anonymized throughout the study. This is done with a goal to protect the interests of the companies and respect the privacy of the informants. Additionally, anonymity is important in order to access otherwise confidential information (Saunders et al., 2016). All company names, informant names and locations have been replaced with pseudonyms. The data collection settings were aligned to ensure that informants' positions in the companies cannot be affected. Data storage and analysis is carried out with special considerations to ensure that identities are not revealed.

With the help of the interview guide and our supervisor we have maximized the objectivity of the data collection process and ensured that data has been collected accurately and to the fullest extent.

4. Analysis

In this section we analyze our data, which are presented individually for each case. This involves a discussion of the organizational, financial and market situation, the approach to innovation work, the top management support the exploratory unit receives, challenges for the exploratory unit in terms of top management support, as well as key challenges. We present our interpretations along with illustrative quotes accordingly.

4.1 Care Inc.

Care Inc. is organized according to structural ambidexterity. Thus, the innovation work is divided between the exploitative and the exploratory divisions which both pursue innovation slightly differently. The exploratory division carries out all radical innovation, often projects outside the established business. Trust is described as an important form of top management support that the exploratory unit receives, and here the manager of the exploratory unit is a key player. Some of the key challenges in the exploratory unit include difficulties in the scaling process, resource prioritization decisions, using core competencies in disruptive projects, product cannibalization, uncertainty in the innovation process, outsourcing labor, and receiving sufficient support and attention from top management. The latter is crucial to access resources, primarily money. Below a more detailed description of the interview content is accounted for.

4.1.1 Organizational setting, financial– and market situation

Care Inc. is part of a Scandinavian multinational company. The group consists of several individual companies focusing on their respective areas with their own top management team, including a CEO. We interviewed employees from one of these separate companies, Care Inc. Care Inc. focuses on hygiene and care products for individual and home care.

The company group has a growth accelerator program where innovative projects can receive for money for research, but not scaling. In the exploitative division, the innovation unit is focused on product development and incremental innovation and the team does not work full time on innovation but have day-to-day tasks included in their workload. Although the budget allocation process is subject to discussion, the CEO assigns the budget, and the Marketing and Innovation Director takes the decisions in assembling the budget that both the

exploitative and the exploratory unit refer to. The budget agreed to by the top management to the exploratory unit can be cut if they fail to deliver what is expected. However, there is no requirement to outline what the money goes to in the exploratory unit.

The company group, including Care Inc., is currently facing two market forces. As one of the biggest players in the Scandinavian country they are based in, they compete well in the national market. The Marketing and Innovation Director is now focused on geographical expansion. While expanding internationally, they have encountered fierce competition. Internationally, competition has a substantial focus on R&D and innovation is done with optimized and efficient cost structures.

> *We are a quite large company, but we have huge international competitors that we compete with every day. They have great teams doing R&D and innovation at really cost-efficient levels.*

Simultaneously, small players have become a threat, with their agile structures making it possible for them to innovate at a much lower cost and react much faster than incumbents.

> *It's not only the large international companies that we compete with but also all the small really agile players, which can innovate in one third of a time and one third of the cost.*

Being in a middle position is challenging. Consequently, the growth in the company group has been declining. In order to adjust to the new situation, Care Inc. formed the exploratory unit, focusing on radical innovation and growth beyond the established business.

> *We need to address the same market trends as the small ones and we think we can do it better than them, but we need to change the way we work to get it to the market in a good and efficient way.*

The exploratory division was started by the Director of the division three years ago, initially working with two people. The division has now grown to four people, including the Director. The way of working is unique within the company group and, thus, they function as a pilot for the entire company group. Previously, no disruptive exploratory unit had existed within the company group.

4.1.2 How Care Inc. works with innovation

The Marketing and Innovation Director works together with the Director of the exploratory unit. The focus of their work differs, yet both are equally important to the company. Although the distinction line between the two units can be unclear, determining what innovation project ends up in which unit is not an issue in Care Inc. In both divisions the informants ensure that the incentives for the employees working with innovation are similar. The employee bonus is not generally higher when working with innovation and it appears that intrinsic incentives are the main driver.

> *I think that the exciting part of it is that every day you learn something new, and sometimes I feel like "Ok, this is going to… we are never going to do this". And the next day: "Ok, ok, we solved it, we solved it!" So that's kind of what keeps me going.*

A lot of the innovation work in the exploitative unit is said to be centered around the Stage Gate model, which includes the traditional gates as the decision-making points. Twice a year the management team have meetings where they align future directions of strategy and innovation work and have a continuous discussion on how much they are prepared to sacrifice in order to be in the forefront of the market.

> *I believe that we need to be in front of this and drive this. If we don't do it, someone else will do it. And it's a… we need to be there to quickly get to the market, to gain positions. Those are the tough discussions we have all the time.*

During these meetings, top management approve or disapprove of innovation projects presented by different innovation managers. Thereafter, they start working autonomously on their projects.

> *And then based on that my innovation managers can start to initiate the project as long as they are a part of the plan. So, they initiate the projects with their autonomous innovation teams. And then they drive the project through and present a business case and concept to me and the extended value chain team.*

During the course of the project it is passed through the traditional gates in the Stage Gate model, which determine if the business case is acceptable or not. However, the top management only represents one gate, which means that extensive project establishment is not needed in higher-level teams. Thus, it is not top management's task to take detailed decisions and drive through the innovation process, but a task for the innovation teams. Hence, it appears that autonomy is important, but checkpoints are used to keep control of the business case.

> *But you know, a long-term plan is approved so we don't need the extensive project establishment in the higher-level team.*

Thus, our informant argues that pushing down the mandate makes it easier to compete with start-ups as this increases efficiency and competitiveness, also when using the Stage Gate model.

> *So, then suddenly you lost 20 days. If you're going to meet the smaller fishes in the pond, 20 days is a long process. That's why we want to push the mandates to these innovation teams.*

The Marketing and Innovation Director argues that the initiator of an idea is less important. Instead, having people that believe in the idea is crucial. The right person for the job is someone that truly believes in the idea and is passionate about it. To succeed with an idea, there is a need for an ambassador and top management support alone is not enough. This has been shown in one of Care Inc.'s remarkably successful innovation projects, where the ambassador was given a clear mandate to operate outside the regular hierarchical structure.

> *I cannot answer who initiated, but clear mandate to one person, not one person, but one person to drive it through. I believe in combining what we believe in as a company and what people believe in. If I don't believe in what I work with I will not succeed with it. Then we don't have someone that can go out and be the ambassador. It doesn't help that we have someone in the management team who thinks it's a good idea.*

One of our informants believes that by taking advantage of the competencies, systems and resources that exist in such a mature and well-established company, Care Inc. becomes more competitive in their offerings to the customers. However, it appears that open innovation is an important aspect of maintaining Care Inc.'s competitiveness. By collaborating with different parts of the value chain they gather significantly more insights.

> *Yes, there are so many opportunities! You know, we have a supply chain, which is great but it's hard for us to always know what the best is. If we gather insights from external partners, we get a lot more.*

The main focus in the exploratory unit lies on new business models and sometimes on projects where the scope is outside existing categories. The unit works on innovation in the areas of sustainability and digitalization. As noted by our informant, shortly after the exploratory unit was formed, they initiated a strategic innovation process where potential growth platforms and business concepts were identified. The mandate for the exploratory unit was established during this process. Currently, the primary innovation work depends on a business opportunity booklet developed in 2015.

> *First thing I did was to have a strategic innovation process where the goal was to find growth platforms and business concepts. And then we had this portfolio of growth platforms and business concepts we look into - where one is more core, and the other is outside the core. So, as part of that we establish the strategy, and what should be our mandate.*

As the exploratory unit was started, new innovation methods were implemented. During the first project Lean Start-up methodology, including Innovation Accounting, was used instead of the traditional business case analysis. The project leader and the advisory board were hand-picked amongst other things to ease the access to the top management, which was especially important because this process was a substantial investment and acceptance in the entire company group was required in order to proceed. Carefully choosing the team is similar to a start-up approach, where the team is essential. It appears adopting some entrepreneurial elements could be the key to innovation success in Care Inc.

I think we succeeded also because we had an advisory board that was picked very carefully so that we had easier access to the company group's top management.

By using Lean Start-up methodology from idea to commercialization, the exploratory unit conducts hundreds of experiments and the team develops in-depth knowledge about the target groups when testing. Extensive testing and hypothesis validation eliminate the risk of failure through a continuous adaptation process.

Yes, yes, that happens all the time [that projects fail]. Usually, since we are doing all these small experiments, it is quite early on that we detect that this doesn't work.

In addition, the Business Model Canvas framework is used. Following the Lean Start-up methodology, the exploratory unit strives to work as a start-up. In order to develop this set-up, the unit has sought help from a consulting company, especially regarding the KPIs and reporting to the top management. Reporting to the top management is said to be done four times a year, although it is up to the exploratory unit to decide the frequency of reporting to top management.

The three main KPIs that are accounted for in the projects include traffic on the webpage, sales conversion and sales retention rate. Similar to a start-up, the exploratory unit applies for funding from the top management. Additionally, the unit benefits from being part of an incumbent. Our informant notes that having competencies and resources internally in the organization frees up time to work on developing projects rather than having to focus on tasks like investment pitches, which start-ups often need to do. Easier access to competencies and resources from the exploitative unit appears to make the exploratory unit more competitive than the usual start-up.

And also, a lot of competencies - we have lawyers, marketing people, M&A people, we have a lot of people in the company, that's why I think it's very fun to work more as a start-up in a big company. People say that we're not as fast as start-ups, but I don't think that's true because they use a lot of time to get funding, and to find the right people.

This new way of working is a considerable change for the company. The exploratory unit requires higher costs and yields lower income over the short-term. Not being able to fund its

own operations and growth is a substantial adjustment for the company group. The top management seems to have accepted these differences by allowing more flexibility in reporting - decisions whether or not to continue a project are no longer taken based on a business case analysis. Instead, the decisions are based on whether the exploratory unit learns from failures, and if the projects are managed in accordance with the timeline.

> *Yes, there has been progress and learning. Those have been the main things. And to see that we are on schedule, according to our timeline. I guess we are in changing times there as well, you know, historically it was a stamp in your head - "Ok, you failed". I don't want us to be in a place like that, I want us to be in a place to learn.*

4.1.3 Top management support for the exploratory unit

In order to achieve an efficient work process and avoid too many decision processes taking place at a higher level, the top management need to trust the employees. The Marketing and Innovation Director expresses receiving substantial support from the CEO, indicating efficient processes.

> *I need to be calm in that I cannot control everything, and the management teams need to be calm because they cannot control everything, and we need to trust our employees. My CEO is backing me like I'm backing my innovation managers, I feel he's giving me all the power in the world to do whatever I want to do.*

The Director of the exploratory unit is described as the support pillar for the employees in the division. The scope of their discussions has a broad range and employees express feeling supported, both when the novelty becomes too difficult or the personal pressure too high.

> *Yes, in the beginning it was a bit of a struggle, but then my boss took a lot of those fights. Yes, so, it was probably a lot more difficult than what I experienced because [the manager of the exploratory unit] wanted me to focus entirely on the project and then [the manager of the exploratory unit] would be the gatekeeper. Talking directly to the management group.*

The Director of the exploratory unit is not only important in terms of providing support to employees, but also as a key player in attaining top management support and resources. Top management's trust in the latter relieves some of the resistance towards the new way of working, and the changing environment of the exploratory unit that otherwise is outside their comfort zone.

Usually I just talk to my boss who is able to help me with it [access to resources].

The high level of trust appears to ease the cultural differences between the two divisions. Not having to describe the project's development in detail creates a certain degree of organizational slack where the exploratory unit can operate more freely. This autonomy is important to stay agile and competitive.

We don't talk to them that often. I'm part of the team but they don't need for us to tell them what we do all the time. They trust us.

The Director of the exploratory unit has experience from working in the top management, also within the same company. Adapting to certain situations and understanding the needs of key stakeholders appears easy. Thus, focusing on long-term and more flexible work processes versus short-term, less flexible work processes appears not to be a problem, as expected.

4.1.4 Challenges for the exploratory unit in terms of top management support

On the one hand, the trust and autonomy given to the exploratory unit is appreciated and the informants talk positively about it. On the other hand, it appears that the substantial amount of autonomy and trust given to the exploratory unit can also be perceived as a lack of interest. However, the exploratory unit has not experienced any budget cuts, which our informant perceives as a good sign.

They have not shown that much interest in it actually. It's just maybe in the last few months I feel at least that they have shown any interest… they don't ask too many

questions, and don't just cut it because there is always cost focus in the organization. But, there have been no cuts and that's a good sign.

Our informant describes feelings of loneliness and high pressure when they are on their own. Thus, the risk and consequences of potential failure become a personal challenge.

I mean it would have been more comfortable if they showed a bit more interest, you feel like you're much more on your own, so if this fails, it's on me.

The top management has been hesitant to the new innovation management tools and does not fully embrace the changes. However, it appears that the Lean Start-up methodology solves this issue to some extent because it initially requires only small investments, substantially reducing risk. This risk reduction makes it easier to receive top management support and approval. Nevertheless, constant questions from the top management regarding the timeline reduces the feelings of support and creates challenges in the relationship between the exploratory unit and the top management.

Mm, yes, they were very skeptical, and they are still quite risk averse. If we keep it so small, the good thing about this is that you are able to do a lot of experimenting quickly and more cheaply… But they constantly ask why it is taking so long, how much it will deliver. Those are the questions you get and sometimes I feel that this is quite frustrating.

Traditionally, projects in Care Inc. have yielded profits early and have funded their own growth. This is not the case in the exploratory unit where funding from top management is required. Inevitably, this stops successful projects. The Director of the exploratory unit argues that the main difficulty for the top management is that the stock market responds to the use of extensive investments. Another issue is the top management's focus on current issues. Occupied with short-term projects they are not interested in long-term projects outside the established business. However, involving external parties from outside the company has convinced the top management of the importance of long-term projects. Finally, to what extent failure is accepted differs within the organization. From the exploratory unit's perspective failing is perceived as unacceptable. Again, acceptance of

failure is crucial when it comes to testing and experimentation, as emphasized by Chen (2017).

> *[If I fail], then I don't have a job. (laughter) I don't know. I don't think that management would understand, because, normally we don't fail. That's the problem with the culture because failing is not accepted.*

4.1.5 Other key challenges

A prevalent challenge throughout Care Inc. is understanding how to utilize the core competencies in disruptive projects and how to prioritize resources. It appears that the main issue is neither the novelty, nor the differences from the traditional ways of working but mere mobilization of the company's existing competencies in a way that the exploratory unit can take advantage of them. This question seems to a great extent be left in the hands of the Director of the exploratory unit who continuously struggles to access resources from Care Inc.

> *I often think about how we should use the core competencies, how to manage the resources and prioritize the bets we want to focus on.*

Another challenge is cannibalization. The top management often encounters situations where they have to take the choice to either terminate a potentially successful project, or to cannibalize on their own products and market share, consequently lowering the margins for Care Inc. However, the informants state that it is down to how they can protect the future of the business.

> *What do we do and how do we take care of the business in the future. Is it lowering margins or not doing anything? What are the consequences?*

The exploratory unit has experienced challenges when hiring the "right" people. There has been a shortage of resources needed to employ several full-time employees in each project, similar to start-ups, and resources have not been sufficient in-house. Thus, the exploratory unit has resorted to hiring external employees on a part-time basis, which is expensive. Our

informant says that providing resources to the traditional business is vital, and they are prioritized. In addition, the exploratory unit needs different resources that are new to the company, which makes them difficult to access and many of the tasks have relied on freelance human resources rather than full time employees.

> *The resource thing has been a bit complicated. The people who are in charge when it comes to making decisions about who we should hire, what type of resources we need for the future, they are not always asking us. You have to push for it yourself. It's difficult, because resources to the core are necessary for the firm's survival. The exploratory unit also need different resources that are new for the company. But I know that they are now looking into hiring someone for those positions.*

Rather than automatically being included, the exploratory unit sometimes needs to negotiate in order to receive attention from the top management. During several instances of these interviews, attention seeking and need of attention from top management is expressed within the exploratory unit.

> *Yes, sometimes I feel a little bit forgotten. It's just the way that we have to always remember to tell them, that we have this launch coming next year and it's quite big, and coming in all countries, and we're left out of all the innovation plans. Why is that? "Oh, I forgot". Yes, but it's very important. So, it's like that, you can see small signs all the time.*

Applying different cultures and ways of working was difficult, especially in the beginning and some tension arose between the units. A substantial part of the difficulties stems from how close the exploratory unit should be to the traditional business unit. Closeness offers access to competencies in the traditional business but also results in interference from top management. If the exploratory unit is far away, the exploitative unit is oblivious to what the exploratory unit is doing. The middle appears to be the golden way for successful innovation. Thus, although the exploratory unit seeks attention from top management, there is a balance between attention and interference.

> *I think it's the middle, somewhere in the middle because if you are too close you use all your time on having presentations and workshops and talking to people, and you*

don't have time to do your project. And if you are too far out you become this weird
person, I mean, you need other people's input to make it right. And there is a lot of
expertise in Care Inc. that you are dependent on.

4.1.6 Summary

Tension between the exploratory and the exploitative unit is expressed by the interviewees primarily and two main challenges are observed. First, the exploratory unit expresses dependability on, and desire for attention from, top management. As a result, the exploratory unit struggles when accessing both financial and human resources. Difficulties in scaling and hiring the right people are mentioned as part of this. Second, mobilization of the company's existing core competencies is expressed as a challenge from the exploratory unit. As a result, Care Inc. has continuous discussions on how closely related the exploratory unit and the exploitative unit ought to be to benefit from the company's core competencies while maintaining autonomy. Autonomy appears to result in a lack of interest from top management and extensive personal pressure for individuals in the exploratory unit while the opposite leads to difficulties for the exploratory unit to maintain focus- and access resources for the exploratory work. As a way to approach these challenges elements of EO, open innovation and different innovation management tools are applied. Primarily Lean Start-up methodology, especially Innovation Accounting, and cooperating with external parties appears to ease top management resistance and create a sense of urgency for the radical change that the exploratory is undertaking. Additionally, the manager of the exploratory unit appears to be a key player in handling the tension.

4.2 Bank Inc.

Bank Inc. has established a division dedicated to both innovation projects and more established operations. Many innovation projects in this exploratory unit are a response to the ongoing digitalization trend in the industry. An example is Project X, which has brought remarkable success, and is a structurally ambidextrous solution. Project X has experienced an overwhelming amount of top management support when it comes to innovation, especially in terms of time, resources, and attention. The key challenges encountered by the exploratory unit include the potential cannibalization of the existing concepts in the

exploitative unit, tension between the exploratory unit and the traditional business, resource allocation between divisions, and uncertainty.

4.2.1 Organizational setting, financial– and market situation

Despite its small size, alongside its traditional banking business Bank Inc. owns subsidiaries that provide additional services in the financial industry. Bank Inc. is structurally ambidextrous with elements of contextual ambidexterity.

The Innovation Director notes, that before appointing of the new CEO Bank Inc. used to be traditional: private market, business, and capital market divisions were formed in silos, the top management was isolated from the rest of the company, and there was less focus on development.

> *In my opinion, Bank Inc. used to be a very traditional bank with branches and silos, and with no focus or dedicated resources on developing.*

4 years ago the CEO and the board decided to establish a division for business development, where initially 3 people worked on an innovation project. The Innovation Director started by removing unnecessary products from the company's portfolio, reducing costs and revising processes since Bank Inc. had been significantly behind in terms of adjusting to the digitalization trend.

> *It has been all about closing the gap, I won't say we are a front runner in terms of being an innovation company or a start-up, we have been working on cost control and minimizing the technological gap, because we were quite a bit behind.*

The formation of this division marked the start of a remarkable transformation in terms of culture and organizational structure, and, as noted by the Innovation Director, change management has been a crucial point of focus in the organization since then.

Working with culture is time consuming. However, it´s the most important aspect of making development happen. It´s also a lot about change management and making people better equipped to handle and enjoy working with change and improvement.

Bank Inc. has seen remarkable growth ever since the formation of the exploratory unit, in 2016 and 2017 the company experienced rapid growth, which they attribute to culture change and understanding their customers' perspective by interacting with them.

We have been growing. 2016 and 2017 have been the best in the history of Bank Inc. The focus in this time period has been on building a culture and understanding people [both employees and customers] and processes, not so much on digitalization. You have to understand the company´s situation before choosing a strategy and solutions.

The structure of the exploratory unit is flat: project managers report directly to the Innovation Director, who is also a member of top management.

4.2.2 How Bank Inc. works with innovation

As explained in section 3.2.1, the exploratory unit in Bank Inc. undertakes exploratory and more established innovation projects throughout the entire company. When introducing innovation to the company, the Innovation Director emphasizes the role of change. The non-hieratical organizational structure is seen as a key advantage when taking decisions in an agile manner.

Change management is very important. It's a lot easier when all the resources who are working on creating value are closer to the top management. Because of this, it´s easy to be agile and the decision-making process here is very efficient. The management group discusses and decides to do a project, and then we just do it.

The Innovation Director notes, that the projects worked on by the exploratory unit will eventually be adopted by the exploitative unit. In order to access the company's core competencies and resources, it is important to keep the exploratory unit's project groups close to the exploitative unit, as well as the Marketing and IT divisions. In addition, having the exploratory unit completely isolated from exploitative unit would make it difficult to reallocate projects.

> *The top management group thought it was important to keep the exploratory unit separate from the traditional bank divisions. At the same time they wanted to make a cross-functional team with people from divisions like IT, developers, marketing, data warehouse, and product- and project managers. This environment sits together to make communication easier, and ensure that we bring in different perspectives in the innovation and improvements work.*

> *The top management group realized that some of the innovation processes we work on might become our new core processes over time. We think that it´s easier for us to do this [innovation] inside the organization and not as a standalone start-up. We also utilize the competencies and resources from the core business.*

How innovation work is organized differs from project to project. Most projects are team-based and some only consist of two people. A considerable emphasis in the idea generation process is focused on customer insights. An example is a project where 60 people were interviewed in order to find out the most important aspects customers want from a service, as well as their decision-making process. Customer surveys are also used as a source of data.
In the exploratory unit elements from Lean Start-up and Design Thinking are used. However, the project teams do not follow a single innovation management tool, the method used in the project depends on objectives.

> *The working methodology depends on the nature and goals of the project. In some cases, it's Design Thinking, in others, such as software development, it's DevOps.*

The exploratory unit works at a high pace, and the most important elements in the process include implementing, piloting, and testing.

> *Sometimes you use too much time on the analytic phase and you do not get to do the work, so the tempo comes from implementing, piloting, testing.*

Agility and size are important advantages Bank Inc. has when it comes to managing the organizational and cultural aspects because it allows to take and execute decisions and change direction fast.

> *I think it´s easier to build an agile culture in a smaller organization. It´s easier to communicate and get everyone to understand why we have to change.*

How a project often works is that there are status meetings, where the top-level requirements are created. After that the team breaks down the requirements and works with different aspects of the product or service concept.

> *Every time we start a new sprint, we have a kick-off meeting where we create the project mandate in order to meet the top level management requirements. Then every project team breaks down the project into tasks.*

> *We take the different aspects of the concept and think "how do we do this?", then we break it down and create small requirements through user stories, such as "the user should be able to select the time and date when they're going to order, and the process should be automatic into an e-mail box" and similar.*

The exploratory unit relies on few external resources, and the vast majority of strategic aspects, such as marketing and knowledge building, are worked on internally.

> *We hardly use advisors in terms of strategic or project aspects. It´s important for us to build competencies, increase our own knowledge, which we can utilize in later projects. This is mostly done internally.*

In order to scope for future innovation opportunities, the exploratory unit holds workshops open for everyone and aimed at gathering insights into who are the potential customers, their preferences, what suppliers and strategic partners would be relevant, and similar.

> *Who is the customer? What do we think the customer wants in the future? What kind of suppliers will be out there? What kind of strategic partners do we need? Then we do the whole analysis and we invite everybody to a workshop to gather all the ideas.*

The exploratory unit follows six-month long project sessions they refer to as "sprints", where employees change seats in the office, evaluate ongoing projects and sign up for new projects. Sometimes it means employees work on explorative activities during one "sprint", and exploitative activities during the next.

Last spring the exploratory unit was working on 22 projects. Each project has a mandate and rules, required KPIs and reporting to top management. A project is started with a kick-off, where all projects are presented, employees pick the projects they want to work on, then they are divided into cross-functional teams, and the teams decide what methodology they would follow.

> *This spring we had 22 projects running. Every project team creates a set of rules for the team. We think these rules are important to help the team work more efficiently together. This also helps us to address difficult topics if the conflict levels rise.*

In Subsidiary Inc. there are substantial culture differences between the team working on the exploratory project, Project X, and the traditional business. The traditional business is a lot more focused on individual work, and the reward system is centered around that, while in Project X teamwork is at the core of its culture.

In Project X we are working as a team. When you are asked about [the traditional business] they are more individually based because they are working on a salary that depends on how much they sell and for what price. All in all, we have a good working environment in both units, but I think working in a team and really wanting the best for each other and helping each other - it's making a better culture and working environment. What we did with our salaries in Project X: we get a basic salary and if we reach the first 2 percent of the market in [city name] we will get the bonus to share. We are enjoying this together and helping each other, backing each other in ways that would not be possible if each person worked for their own salary. It's a big difference.

The exploratory unit does not engage in a lot of experimentation due to limited project timeframes, which the Project Manager identifies as a challenge.

In the optimal scenario, the setup of the sprints should allow for more time to experiment.

The metrics used to evaluate projects vary and are chosen in accordance with the nature of the product or service. An example of metrics used includes whether the product was developed within the proposed timeframe.

The metrics we use to evaluate projects vary from project to project. In the kick-off meeting in the start of each project, the goals for the project are set. Examples of metrics we have used before are whether we developed the product within the proposed timeframe or the number of product orders should be increased by X percent.

Project managers of the exploratory unit report to the top management every quarter, this includes updates regarding the KPIs and what has been accomplished.
The Project Manager admits that Project X has shown considerable competitive aggressiveness through marketing their products as a result of being part of a larger organization and having more available resources.

We wanted to make a statement that it is possible to deliver a great product, in an industry with large established competitors. Thus, we had to challenge the established norm of how the product was perceived.

The Innovation Manager notes, that they have been developing an entrepreneurial mind-set in the exploratory unit.

Yes, that's what we're trying to create. But hasn't always been this way, and we are not like a start-up for sure, we are something in the middle.

When it comes to leading the exploratory unit, the Innovation Director emphasizes the importance of prioritizing people, setting high standards for them, treating them as individuals, as well as stimulating learning and the organization overall.

The interest and love for the business and the people, the excitement for learning and improving, and creating results and value together. I hope we never lose that culture and drive – it's unbeatable!

4.2.3 Top management support for the exploratory unit

The General Manager who works with Project X expresses that the top management had shown an overwhelming amount of support in terms of resources, time, rooting for and backing the project.

I'm overwhelmed by the support from the management, they are very supportive with Project X, they love the concept, I think the whole floor are cheering for us and think it's a very cool thing, something new.

We said we are going to really try this, we really think that this is a good idea, we think the customer wants it and there is obviously a gap in the market. So that was

full top management focus, the board was with it, everybody was with it, this division was overwhelmed, and they got placed up here like we've been - ok, is everything ok?

Top management gives the exploratory unit autonomy, and they do not pay attention to the details of each project due to a competence difference that exists between the project members and the top management in combination with the time limitations for each project.

When we're reporting to the top management, we don't go into the nitty gritty details of the projects. We discuss the main issues and challenges we're facing, and the progress of the projects.

The Project Manager notes that the top management provides freedom, which allows them to feel challenged and encouraged.

The freedom provided by the top management is both challenging and encouraging. It's challenging because we have to find the best approach to solve our tasks, with the help of the innovation director to point us in the right direction. It's encouraging because it shows that the top management has confidence in us.

In addition, it is relatively simple to access resources, such as money, for projects that are deemed as critical and are high on the list of priorities. As a member of the top management, the Innovation Director plays a crucial role in securing resources for the exploratory unit.

We generally receive the resources we require, given a documented need for the resources. Being a small team requires us to be creative with the human capital. The challenge is how to best utilize the resources and determine what resources are required for the project, as the most obvious choices might not be the best for the project.

CEO supports the new culture, while the rest of top management have different perspectives and focus areas due to the branches they manage, for example, the finance representative pays more attention to sustaining and raising margins, and less to culture development.

It's natural that the top management group have different focus and understanding of the importance of change, and what kind of prioritizing we have to make. With different mandates and perspectives it is natural that we have some difficult discussions.

4.2.4 Challenges for the exploratory unit in terms of top management support

While in Subsidiary Inc. there is an overwhelming amount of management support for Project X, the Project Manager noted that it would be optimal to have someone they can consult with regarding the technical aspects and issues of the development process.

In terms of development projects, it would be helpful to have access to resources we could consult with when we're facing obstacles in the technical aspects of the projects. Having someone to help point us in the right direction, if we're unsure of the best approach to solving the issues that come up in the development process, would be a great help to keep the tempo up.

4.2.5 Other key challenges

A challenge Subsidiary Inc. encountered when working with Project X was the potential cannibalization of its traditional business, which radically changed the way this part of operations would be handled. This implied the subsidiary had to find a way to distance their new concept from the existing concept.

I'd say the difficulties came when we were looking at - are we are going to devote this new project [Project X]? We have a limited set of resources in terms of people

and timeframe to deliver the project. We have this exciting concept that we didn't want to ruin or cannibalize too much of, so we had to come up with a way to distance the brand [Project X] or the concept enough from the existing brand.

This apparent concern for cannibalization resulted in tension and a sense of competition between the Project X team and the traditional business. This mainly appears during times when the traditional business is doing worse than usual.

It's a little bit ups and downs about that competition feeling…

But as I said it depends on how each person are doing, if some of the [workers in the traditional business] from the first floor feel they don't get enough units to work with, they will often see it as our fault. But if they are busy and are getting some customers, it's all good. It depends.

The Project Manager states, that a challenge encountered in development is about how different technical components, such as software, should be made compatible with other parts of Bank Inc.'s brands and how these brands should utilize these components.

When we develop new solutions, we always have scalability in mind. The solutions should be robust and easily extended in order to cater to changing requirements, which requires us to have a broader focus when setting up the solution architecture.

As a result of implementing a new process, another challenge emerged. The Project Manager found it difficult to combine developing a new routine for handling the process with simultaneously moving the project forward.

We had to set up a new routine with another team that was crucial for the project, which proved to be challenging, because we wanted to keep the pace for the project up. In retrospect, we could have saved time by settling the routines beforehand, to prevent the back and forth.

Additionally, the Project Manager struggled with not having enough co-workers, and having to combine different roles: managing the project and also developing the software without additional help. Due to the shortage of time, this had a negative impact on the Project Manager's ability to execute various crucial aspects of innovation work, such as developing code.

In some phases of the project, it would have been helpful with more human resources. It was difficult to combine multiple roles in a project, such as a project manager and developer, as you have to ensure that the project moves forward, but also produce quality code. In the last phase of the project, this was easier as we had managed to acquire new resources as well as better distribution of tasks across the project members.

In the beginning of the organizational shift when the Innovation Director was questioning the existing ways of working and eliminating the silos, there was a lot of resistance to change. The resistance can be partially attributed to uncertainty.

It was kind of troubling because they [the employees] saw that for the first time some people [the exploratory units] were interfering with the silos' processes and tasks, and saying: "We're going to look at this process and work with improving it". People like what they have, [and don't want anyone else come from the outside to interfere] and it was a struggle in the beginning for sure. In the beginning we often heard: "I don't know what they [the exploratory unit] are doing and why we need them at all."

Due to managing the exploratory unit and being a member of the top management simultaneously, the Innovation Director finds it challenging to allocate resources, such as marketing, in a fair way so that both units get the resources they should and to communicate how the prioritizing is made by the top management group.

The hard part is that I also run the digital part of the income line, which is a growing income line. And sometimes I have to be very careful to ensure that all branches feel equally important.

In addition, it is problematic to balance how much attention each division should get from the top management, the board, and in the weekly mail from the CEO.

We sometimes hear from the organization that we have an A- and a B-team - who gets the most attention of the board, the top management etc. With the [ambidexterity] model, it is very important how the top manager and the top management team secure this is balanced.

In Subsidiary X, the employees working for Project X appear to have a more dynamic working environment compared to the traditional business.

The workdays between the exploratory and the traditional units are very different, concerning tempo and tasks. So, I guess there are a little bit of jealousy between the units once in a while.

In order to deal with the uncertain environment in the industry, the Innovation Manager emphasizes the need to be able to react and adjust to the ongoing digitalization trend in an agile manner.

We often say we just have to eat the elephant in small pieces. We just have to set high goals, start working and believe that it is possible, even though we are a few people in an industry that changes very rapidly.

Due to the high number of projects and the high workload, the bank might become too short-term focused and lose sight of the long-term strategy. In order to manage it, the Innovation Manager emphasizes the importance of staying focused on values and vision.

I sometimes get asked: "With all these sprints, how do you not lose track of the future and the strategy in the longer run?" This can worry me sometimes, but we always have our values and our vision in mind, and that helps to navigate in a more long-term direction strategically.

4.2.6 Summary

In Bank Inc. the manager of the exploratory unit emphasizes the importance of the exploratory unit being interlinked with the exploitative unit rather than separated, to benefit from the company's core competencies. The manager of the exploratory projects has worked on this from their start in Bank Inc. Only some tension between the exploratory and the exploitative unit is expressed by the interviewees and two main challenges for the manager of the exploratory unit are observed. First, an overwhelming amount of top management attention, resources and dynamic working conditions in the exploratory unit is expressed. This appears to have resulted in occasional envy from the traditional divisions in the company towards the exploratory unit. As substantial part of the company's revenue is generated from the exploratory projects top management is eager to prioritize said projects with resources and attention. The manager of the exploratory unit sometimes struggles to communicate to top management that prioritization of fair attention and resource allocation to divisions is important in order not to fortify the tension. Second, Bank Inc. is not a traditional innovation company and transitioning towards exploratory work has involved changing culture and equipping employees to better handle and appreciate radical innovation. As a way to approach these challenges, the manager of the exploratory unit thus needs to be cautious when dividing resources not to increase the tension and occasionally needs to be restrictive when diving resources to the exploratory projects. In addition, elements from EO and Lean Start-up, as well as Design Thinking are applied.

4.3 Food Inc.

Food Inc. is structurally ambidextrous. It has a separate division dedicated to exploratory activities, where the emphasis is put on radical and strategic innovation. Trust, prioritization of innovation projects, autonomy, and recognition of innovation from the CEO and the

board, as well as acknowledgement from top management are noted as the key areas of support. The key challenges encountered by Food Inc. innovation manager include accessing resources, changing the perception of innovation in the organization, transforming the existing culture, and transferring the projects from the exploratory division to the exploitative division. A more detailed description is provided below.

4.3.1 Organizational setting, financial– and market situation

When it comes to innovation, Food Inc. consists of primarily one division where innovation takes place, and it was started 4 years ago. Due to shifting consumer trends and decreasing demand, Food Inc. has been doing poor financially. As a result, Food Inc. defined their first innovation strategy, and an urge for new ways to grow started to emerge. The exploratory unit was then formed with a handful project managers starting to work on different projects in the already established business. Today, there have been examples of projects where some teams have been physically separated from the rest of Food Inc.

As a project is started, the project managers pick employees from the other parts of the company that they want to join them in this process. Decisions regarding innovation are taken by the Research and Development and Innovation board (referred to as R&D and Innovation board), consisting of the top managers in the company, including the Innovation Director and the R&D Director, with the CEO as the owner of the board. Thus, the Innovation Director works directly with the CEO when it comes to innovation related decision processes. However, the top management is currently struggling in taking long-term decisions focused outside their responsibility area, which is required due to the currently poor financial situation. Hence, the composition of the R&D and Innovation board is changing in order to include board members that are relieved of the duties that top management are not, often including short-term perspective.

Focus in the exploratory unit lies on growth based on radical and strategic innovation and the projects reach far outside the established business area. Once a project is approaching the launch stage, operations take over the innovation projects.

4.3.2 How Food Inc. works with innovation

Historically, this company has worked with incremental product development a lot. Prior to the establishment of the exploratory unit, a definition of innovation was developed to

differentiate between product development and radical innovation. The Innovation Director's portfolio of business ideas is told to contain both incremental and radical innovation projects, and short-term and long-term projects to be able to deliver quick results and proof of the effects. This mix of incremental and radical innovation facilitated top management support for the strategy.

I started with having both incremental and radical [innovation] because you need to prove throughout the way. Working with innovation in a company where the culture and tradition is that you want to do as you always have, you need to prove that it's successful. So, you need both long-term and short-term projects to prove this.

Although using the Stage Gate model was never the Innovation Director's final goal, starting out with it was a smoother way to change the culture at Food Inc. Our informant describes that relying on a more familiar framework eased the transition process. As of recently during the last month, the exploratory unit has been transforming the innovation work and incorporating Lean Start-up methodology to achieve a higher tempo, more consumer orientation, as well as more experimenting and testing before the launch.

Since we started 4 years ago until now we started with an innovation process that was built on Stage Gate. Because we had to, you have the culture here. The culture is that innovation is product development… We are now going over to a new model. And why are we doing that? We need more tempo, more focus on the consumers to more accurately meet the consumer needs.

When the exploratory unit was formed, a booklet of business opportunities (innovation opportunities) was created. Today many innovation projects reside in this booklet. The exploratory unit was the initiator of the ideas, although innovation initiatives can come from anywhere within the organization.

On that occasion we [the exploratory division] came up with the idea. In other projects it can depend on the occasion and it has been very mixed... The last half a year we have included the whole organization in the idea generation process. So, then actually it's everyone that has taken part in it, the whole value chain. Yeah. It's really a difficult answer because it can really come from everywhere.

In addition, in case of failure, our informant says that there will be no consequences. Failure is perceived to be accepted in the organization.

> *We have had failed launches, there have been projects that haven't been successful. But there haven't really been any consequence to it… It's ok to fail internally, I would definitively say that.*

Although a separate exploratory unit is established, we are told that Food Inc. strives to engage the entire organization in the innovation work. Engaging the entire organization is founded in the fact that Food Inc. strives to change the perception of what innovation is to be perceived as. As part of this, once a year a "Innovation Day" is organized. On this day the entire company participates in innovation-focused events, such as workshops. The exploratory unit meets certain resistance to this type of work and not everyone wants to participate in idea generation and other work that involves creativity. This has created certain resistance between the separate units. Our informant tells us how they try to create more engagement and change the mindset of the participants by using different innovation tools.

> *I have had a couple of workshops on idea generation and that's not always so easy. They [employees participating in the workshops] are sometimes passive… So, in the upstart phase I use the Canvas model a lot and I found that to be a very useful tool. Instead of just putting up a note, we give out the canvas and then in four to five minutes everyone should come up with one thing. That gives a sense of duty since they have to present it afterwards. It's a very useful tool for that process.*

In addition to the "Innovation Day", Food Inc. have set up an internal innovation network where employees passionate about innovation can gather and exchange ideas and methods. It appears that the network strengthens the innovative forces within the company and creates a support pillar these people can turn to when the organization's support is insufficient.

> *We have an internal innovation network. People who are passionate about innovation in different business units of the company. We meet and share methods*

and new ideas, so we try to use this internal network and it also builds culture – to share the way to work and think about innovation.

Food Inc. have established a yearly innovation prize from the top management as part of the reward system. This would strengthen the incentives to innovative. It appears that Food Inc. goes to great lengths in order to establish a more innovative culture.

We have an innovation prize each year, so people inside can apply for that, like a reward system. And in the innovation bard we have a prize from the top management.

While being on a very tight budget, Food Inc. has applied two techniques. Open innovation is an essential part of the exploratory unit. The Innovation Director considers external collaboration to be crucial and always strives to work with other companies and institutions. To Food Inc. open innovation involves getting access to funding in certain projects and expertise in areas outside Food Inc.'s knowledge base. Our informants emphasize that open innovation is prioritized throughout the work in the exploratory unit. Having an entrepreneurial mindset is equally important. As a result, employees in the exploratory unit take on many roles and do most of the work themselves. We acknowledge that the financial situation of Food Inc. might initiate certain entrepreneurial elements, such as having to take on many roles.

I think it's very important, we don't have much money and low budgets, so we have to think about it as a start-up. So, in that way you have to try and think like an entrepreneur.

4.3.3 Top management support for the exploratory unit

During the change towards innovation focused work, the group CEO and board supported the vision, mission of innovation, and the working methods that the Innovation Director suggested. This trust is crucial. Our informant tells us how the board and the CEO have been positive towards the exploratory unit and have made official statements that the innovation work should be prioritized internally.

Yes, they have trusted the methods I have used, and the theories. You can't succeed with innovation unless you have management with you this way. The CEO and board leader are super positive to us, really, and super big supporters.

Top management has been involved throughout the entire change process, including in creating the business opportunities (innovation opportunities) booklet. Participation in workshops, suggestions regarding the process and taking part in the decision process of what projects to start the innovation booklet with suggests that the strategy was deeply rooted in both the company board and top management.

They [the top management] were in all the workshops and they also suggested three business opportunities to start with.

Since the introduction of the new R&D and Innovation board, the autonomy of the exploratory unit has increased. Less frequent meetings suggest that the exploratory unit can operate in a more independent manner.

Now in this new board we're not going to meet so often, maybe every 12 weeks. And then we'll ask how it's going and ask if we need some money.

For specific aspects that the Innovation Director considers to be of outstanding importance, such as open innovation, the top management has been supportive and given trust even despite the fact that the income is far in the future. The trust from the CEO and the company board is the key to accessing resources.

The CEO sees that it's important with these projects on the side of the everyday store… We absolutely depend on his support, since resistance internally can be strong, and since almost the whole company is preoccupied with day-to-day operations and it's difficult for them to see the importance of what we do. The times

are tough and yes, that CEO supports us, the top management and the board do, too. That also makes it easier to access resources.

However, it is important to mention that one of our informants has received substantial funding support from external collaborators in the majority of their projects. Thus, the top management support received might have had a more positive tone because these projects have not been particularly expensive.

We have been supported by [institutional collaborators] with a quite substantial amount of money, internally it hasn't been a big costs decision. So, the board has quite happily decided to continue working.

In the exploratory unit, many projects have a high degree of uncertainty. The Innovation Director has emphasized this to top management, they then eased the situation by supporting the exploratory unit with sufficient resources to approach the uncertainty appropriately.

I feel that they support me as the point of departure, and I have been very open regarding the uncertainty of the project and that I need the resources.

The benefits of working in an established company is that the exploratory unit has the potential to benefit from a strong top management support and access to competencies and resources that a start-up would not. Our informant believes that this allows Food Inc. to be more competitively aggressive compared to a start-up. However, our informant argues that being physically separated from the exploitative unit can be beneficial if the support for the exploratory unit is low and its management needs to fight in order to access resources. In this case "resources" refers to manpower.

Yes, we get more competitive, it's both parts if I think about it. I had a small company myself and developed a product and I noticed how extremely motivating that was, I wanted to succeed myself. But at the same time maybe you get the chance to take bigger risks here… So, it's two sided.

And we sit in the building, as long as we need resources within the house. But in some projects, it would probably be good that we get to sit outside, too. Mainly that we get to sit a bit on our own and together, and I think that's important. You also have the very passionate people with you longer, you bring them longer than just until the project is done.

Finally, one of our informants appreciates being able to present to the top management and be involved with top management in other ways. Our informant expresses feelings of satisfaction and that the work they do is important for the company. While our informant has worked in other parts of the organization, the same context has not been observed there.

And I feel for myself, to be able to work and present projects to the top management and the board, I'm seen much more than when I have been in other positions internally. That is super motivating.

4.3.4 Challenges for the exploratory unit in terms of top management support

Although the CEO shows substantial support towards the exploratory unit, the support from the entire top management team and the rest of the organization is more varied.

The top management supports us at varying levels. But the CEO thinks that we are doing work that should be prioritized internally, then they can't really do much other than be part of that.

It is a challenge to get people in the organization to prioritize the projects they are given. Our informant explains that the top management agrees to provide resources to the exploratory unit in terms of labor. However, in practice the employees promised to the exploratory unit are not liberated from their day to day tasks, which makes it difficult for them to help and participate in the exploratory unit's projects as promised. Top managers prioritize their business areas over the exploratory projects.

One thing that can be difficult is to get others in the organization to prioritize. Top management might say "yes" to starting a project. And the directors for the different business areas can say: "Yes, you will get resources from me." But then when I actually get to that point these resources won't be provided for the work that should be done in my project.

Thus, decisions to allocate the resources matter little if it they are not implemented. Our informant argues that locating the exploratory unit or certain project groups outside the main building potentially solves this problem. Located outside the company's building, the exploratory unit no longer needs to continuously negotiate for human resources and sufficient budgets. Thus, it appears that radical innovation benefits when located outside the company building.

We have to work outside the mother company, because there we fight for resources, and money. We have to live more on our own. And that's also the experience from many other companies, nationally and internationally.

One challenge in terms of support has to do with convincing the finance division, which is naturally concerned with securing results. Primarily, issues arise due to the fact that the future success and income from exploratory projects is difficult to predict and might be far ahead in the future. It appears that this uncertainty can limit the ability to apply new frameworks and methods in the exploratory unit.

CFO, the finance and the controlling people are here, they are thinking rather traditionally. They ask: "What will this give us in net effect next year?" And that's one of the most difficult things when working with innovation because you can't predict the future.

However, when the Innovation Director has needed more resources, the company board has been helpful in providing the necessary resources.

Yes, I'm working with this… [to get sufficient top management support] to get enough resources. I forgot to say that innovation is one of five main goals in the group strategy. And that did not come from the top management, it came from the board.

Although top management is supportive, they are also perceived as somewhat risk averse. This might lead to less innovative solutions that have a suboptimal impact on performance and financial results than desired. Our informant argues that on a certain occasion choosing the riskier project, which was further away from the traditional, established business, would have had a better yield than the less certain solution that top management chose to launch.

For example, the [project name]. I presented two suggestions on how to deal with the coming trend. One meant a lot of risk and investments, the second one meant going to a chain and cooperating with them and launching it with their brand, therefore, they would get access to it and be able to present it. The management was reluctant to take the risk, they chose alternative number two, the one I wanted to do the least. And we notice this now, we can't do anything with the products lying in the grocery store. For example, [collaborator] develops the products. We couldn't sell these products to all chains, but it's only one. So, I think it would've been better with the suggestion that was my first choice.

Thus, although at the first glance the exploratory unit in Food Inc. seems to receive substantial support from top management, there are several areas where top management becomes a hindrance, rather than support for the exploratory unit.

4.3.5 Other key challenges

An important challenge for Food Inc. has been the transformation of the culture and beliefs in order to change the perception that innovation is seen as radical innovation rather than product development. In other words, change management has been an important part of transforming the culture in the organization. The culture at Food Inc. is strong and fortified by a tradition heritage. Occasionally, external parties have been more successful in

convincing top management of the exploratory unit's arguments and the importance of innovation.

> *The culture is that innovation is product development, you have a culture that people are doing the same things they have always done. Innovation here has been change management.*

Our informant notes, that it is important to include and maintain a dialogue with all stakeholders.

> *I think many feel that I'm a threat, they're afraid for their job areas. People look at the innovation and the way I want us to do innovation as a threat. I think what I do is that I always talk with those in top management that are stakeholders in different things. I will always work with the stakeholders.*

During times of poor financial performance, the exploratory unit experiences a lot of resistance towards exploratory activities from the rest of the organization. It becomes more difficult to maintain a long-term perspective and focus on day-to-day work.

> *We do a lot of long-term projects, and when performance in Food Inc. is poor, then there's a lot of focus on the day-to-day work. I think it's super important that we can find other income streams.*

One of the key challenges in Food Inc. is to integrate innovations back into the traditional business divisions. It is difficult for the operations to take over the innovation projects. The Project Manager emphasizes the importance of matters such as the timing when operations should take over exploratory projects, and how developed the project should be when they do.

One of them is that it's difficult for the operations to take over [the innovation projects]. When should they take over and how finished should it be when they are taking over?

When it comes to transferring the project to the operations division, a substantial challenge is that the previous project owner and the key person who has closely worked with it is no longer there to support it. Delivering to operations division too early has proved to be an exceptional issue because the project still relies on the dedicated, passionate person in the early stages. Thus, the timing of delivery needs to be thoroughly considered.

We launched products in [grocery store], and there was a product - purchase manager and we two worked very closely on this. When it was launched I delivered it to the operations, then he quit his position and then again there was no engagement.

Innovation processes require people who, as noted by the Project Manager, show considerable interest and dedication to innovation.

And one of the main experiences is that you need a very passionate person that lives for this [innovation].

4.3.6 Summary

Some tension between the exploratory and the exploitative unit is expressed by the interviewees and three main challenges are observed. First, the manager of the exploratory unit expresses dependability on, and lack support from top management when implementing human resource allocation decisions. In particular, allocating time for exploratory team members appears to be especially challenging. Second, transformation of the belief system, culture and perception of innovation has been challenging and employees and parts of the top management team have shown resistance towards the exploratory activities. Third, the optimal distance between the exploratory unit and the exploitative unit for the exploratory unit to simultaneously benefit from the company's core competencies while maintaining the

desired level of autonomy is still debated. When integrating innovation projects into the exploitative divisions, the timing of said process appears important. If the innovation projects are taken over too early they can lose a crucial aspect - the passionate and ardent person nurturing the project, which results in stagnation once it is transferred to the exploitative unit. As a way to approach these challenges, elements of EO, open innovation and different innovation management tools are applied. Primarily the Stage Gate model including external parties, such as research institutes and, start-up networks and other companies, appears to ease top management resistance and create a sense of urgency to the radical change that the exploratory unit undertakes. Because Food Inc. has a poor financial performance, open innovation appears to be especially helpful as collaborations have led to substantial financial support.

4.4 Summary

Table 4.1 provides an overview of the analysis.

Case	Key challenges experienced by the manager of the exploratory unit	Ways to approach the challenges
Care Inc.	Top management has a short-term focus; Exploratory unit is dependent on top management. Accessing financial- and human resources; Risk averse top management in uncertain context; Failure is perceived as unacceptable; Resistance from top management when it comes to scaling products; Tension between exploratory and exploitative units; Dilemma regarding how close exploratory and exploitative units should be; Uncertainty.	Innovation tools, especially Lean Start-up, and EO elements to reduce costs and risks; Innovation tools, especially Lean Start-up to gain trust from top management; Bringing in external parties to ease top management resistance and create a sense of urgency; The manager of the exploratory unit is a key player when dealing with the tension due to being part of the top management team.
Bank Inc.	Envy from the traditional business towards the exploratory unit due to the more dynamic working environment present in the unit as well as extensive attention towards the exploratory unit from top management in several instances;	Innovation tools, especially Lean Start-up and Design Thinking to reduce uncertainty and foster the development of an innovation culture; Manager of the exploratory projects is

	Top management wants to divide resources to most profitable and exciting projects; Cannibalization of the exploitative business; Changing culture in the organization in order to embrace radical innovation; Uncertainty.	cautious when allocating resources among divisions; Interlink the exploratory unit with the exploitative side of business; The manager of the exploratory unit focuses on company vision and values.
Food Inc.	Exploratory unit is dependent on top management; Accessing allocated human resources; Varying top management support to innovation; Risk averse top management in uncertain context; Transforming the culture and perception of innovation in the organization; Resistance towards exploratory activities in the organization; Integration of innovation projects into the exploitative unit without losing the project care taker; Dilemma regarding how close exploratory and exploitative units should be; Uncertainty.	Innovation tools and elements of EO to reduce costs and risk; Innovation tools, Stage Gate, to create familiarity and demonstrate project viability to top management; Cooperating with external parties to create a sense of urgency; Locating the exploratory team outside the main building for certain projects and activities.

Table 4.1. Summary of key challenges encountered by the manager of the exploratory unit and tactics used to handle them.

5.   Discussion

In this section we perform a comparative analysis of the three cases in relation to existing theory. First, we provide an overview of the key similarities between the companies. Second, we outline the overarching challenges experienced by the manager of the exploratory unit and compare across cases. Third, we inspect how the manager of the exploratory unit handles the challenges in all three cases. In addition, we highlight the context in which the findings provide new insights into the existing ambidexterity literature.

First, we outline a number of similarities among the cases. All three companies have established a form of structural ambidexterity at either corporate or project level. In both Care Inc. and Food Inc., structural ambidexterity is present in a separate unit, which undertakes radical and strategic innovation projects. In Bank Inc. a division that works on both innovation and established projects has been formed, however, in one of its subsidiaries the company has been working on a project with an exclusively structural ambidextrous solution. The companies all leverage the existing assets and competencies from the traditional side of business to their benefit, which supports the arguments in ambidexterity literature (Smith & Tushman, 2005; O'Reilly & Tushman, 2013).

All three companies have experienced significant changes in their external environments. This includes changes in micro and macro environments, such as shifts in consumer preferences, a rise of unconventional competitors, and new regulations. In order to adjust to the circumstances, the companies have established structural ambidexterity.

As predicted according to Avlonitis and Salavou (2007), all three companies show several elements of EO. Innovativeness and autonomy are present in all three cases. Food Inc. and Care In. do not fulfill the risk taking and proactiveness criteria to the same extent as Bank Inc. In both companies the exploratory unit perceives the top management to be risk averse and rely on predetermined lists of business opportunities to guide the innovation process. The latter contradicts with the argument proposed by Chen (2017) who claims that the exploratory unit needs to be guided by emerging innovation strategies and maintain an outlook based on opportunity seeking behaviors. If the exploratory unit relies on predetermined strategic directions instead, it may intervene with the discovery of new strategic possibilities (Chen 2017).

A potential reason why the companies have adopted elements of EO might be a result of the changes in external environment experienced in all three cases. Avlonitis and Salavou (2007) argue that EO allows companies to significantly alter their competitive positions, which is especially relevant in highly dynamic and uncertain environments. Additionally, it can be perceived as the exploratory unit managers' response to the challenges encountered in delivering innovation. Further, it appears in the case of Food Inc. financial difficulties have resulted in developing additional elements of EO.

It is evident that all three companies rely on alternative innovation management tools to varying degrees. In Care Inc. the projects in the exploratory unit have been based on Lean Start-up methodology, in Bank Inc. elements of Lean Start-up and Design Thinking methodologies are used for certain projects. In the case of Food Inc., the Lean Start-up methodology has been recently incorporated in the exploratory unit. All companies utilize the user feedback system and optimization benefits offered by Lean Start-up, which is consistent with the arguments of Mueller and Thoring (2012).

All of the above-mentioned tools and strategies used are important means of handling the different challenges experienced by the managers of the exploratory units, which are discussed and contrasted further in this section.

Further, this study provides new insights into the challenges experienced by the manager of the exploratory unit. In the case of Care Inc. and Food Inc., the managers of the exploratory units state that they do not have access to desired amount of resources from the top management to reach their full innovation potential. This manifests itself in a different manner in both companies. In Care Inc. the manager of the exploratory unit finds it challenging to access sufficient human resources and financial resources for scaling projects, in Food Inc. - mainly human resources. In Food Inc. the exploratory unit states that financial resources are insufficient although a desire to increase the level of financial support from top management is not expressed. This is an interesting point we will return to later in the discussion.

In the case of Bank Inc., the amount of resources, such as marketing, is usually perceived to be sufficient in the exploratory unit. Compared to the other two cases, the exploratory Project X was a remarkable success already from the start, and that might have set the company apart from Care Inc. and Food Inc., where exploratory activities have brought slower or more inconsistent results with income further in the future, respectively. Stensaker (2018) argues, that it is common and even expected for the top management to challenge the

exploratory unit instead of allocating resources freely, especially when it is still new and has relatively minimal contribution in terms of revenue and profitability. Due to the top management team's responsibility towards all stakeholders, this is not surprising.

In all three cases there is evidence of varying degrees of tension between the traditional and exploratory business divisions. In Care Inc., the tension is present on a managerial level, while in Food Inc. and Bank Inc. - on employee level. In Care Inc. the tension appears to be based on what our informant in the exploratory unit described as an excessive emphasis on the short-term focus among top management, which at times makes the manager of the exploratory division feel neglected. In Food Inc. the tension appears to be rooted in the resistance to change within the organization.

Further, in Bank Inc. tension arose partially due to the more dynamic work environment present in the exploratory unit and partially due to the distribution of top management attention among divisions. The overwhelming top management attention appears to have resulted in envy towards the exploratory unit from employees working in other divisions. The manager of the exploratory unit expressed the importance to use caution when distributing resources to the different divisions not to fortify this tension.

Consistent with arguments of Tushman and O'Reilly (1996), uncertainty is a challenge in all three cases. Nevertheless, failure is perceived to be unacceptable by the exploratory unit in Care Inc. In Food Inc., there is a higher perceived tolerance for failure. Chen (2017) argues, that acceptance of failure is essential in both the company as a whole and in the exploratory unit due to the low success rates of exploratory activities. Thus, lower tolerance for failure in the organization negatively influences the ability to carry out innovation efforts.

Similarly, in the cases of Food Inc. and Care Inc. where the managers of the exploratory units state that the top management teams are risk averse, this substantially influences the work of the exploratory units. As noted by an informant in Food Inc., this leads to undertaking suboptimal innovation projects with a lower yield. Thus, it appears that low acceptance of failure in combination with perceived risk aversion among top management leads to less radical innovation. This is problematic since it directly contradicts the purpose of the exploratory unit (O'Reilly & Tushman, 2004).

A possible reason why Bank Inc. has a more relaxed attitude towards failure and risk-taking in the context of innovation, is their size. One of the informants acknowledged the advantage of being able to efficiently communicate, make decisions fast and build an agile culture within a smaller organization.

A challenging aspect for the manager of the exploratory unit in Food Inc. has been overcoming resistance to change from both top management and the rest of the organization, as well as the transformation of the belief system, culture, and perception of innovation. In addition, our informant in Food Inc. stated, that they need to prove the viability of the innovation ideas to the top management throughout the entire innovation process. In Care Inc., a similar challenge has arisen - the manager of the exploratory unit noted, that they have to actively convince the top management and the organization overall of the importance of innovation and adopting a long-term vision.

Another challenge is finding an optimal balance between autonomy and top management attention. On the one hand we observe that the managers of exploratory units in Care Inc. and Food Inc. express a desire for additional top management attention. On the other hand, these informants simultaneously emphasize the importance to remain autonomous.

In line with O'Reilly and Tushman (2011), the manager of the exploratory unit in Food Inc. argued that it is important that the top management expresses trust in their vision and working methods. This autonomy appears to be crucial in order to access resources and, ultimately, succeed with innovation. In addition, Food Inc. argued that in certain cases there is a need to preserve a substantially high degree of autonomy because it reduces the propensity to fight for resources. Likewise, Care Inc. noted that receiving attention and working closely with the top management can lead to too much interference and often try to avoid too this by keeping a certain distance. Similar to Food Inc., the manager of the exploratory unit in Care Inc. noted the importance of trust and autonomy in order to be able to stay agile and competitive.

Simultaneously we observe that the two companies show a desire for top management attention. In Food Inc. the exploratory unit is eager for top management support in implementation of human resource allocation decisions and when dealing with the financial department. In Care Inc. desire for top management support is related to accessing resources and to take away some of the personal responsibility and pressure. In addition, they seek attention from top management in a form of including the exploratory unit in short-term and long-term plans and even meetings.

On the other hand, in Bank Inc. we do not observe the same need for attention from top management in regards to resources for the exploratory unit. The level of trust from top management towards the exploratory unit is perceived to be high and the manager of the exploratory unit believes that the unit has access to an optimal level of resources. Further, Bank Inc. does not express a desire for additional autonomy or trust from the top

management but rather that the closeness to the exploitative units is beneficial when leveraging the established business core competencies in an efficient manner.

While the informants in Care Inc. note the importance of finding the balance between attention and autonomy, Bank Inc. is the only company in this study that has adopted elements of contextual ambidexterity on project level. According to the manager of the exploratory unit, they have found the optimal balance between staying sufficiently close and maintaining the necessary distance from the traditional business. These findings raise a question, to what extent does the manager of the exploratory unit benefit from relying on autonomy in structurally ambidextrous organizations? This appears to be an interesting area for future research.

Lastly, in all companies our informants express that working in an exploratory unit comes with substantial personal pressure and challenges, which stem from the nature of work in their unit. It would be interesting to further research this to see if this might be related to some of the challenges identified in this research.

Having identified the challenges encountered by the managers of the exploratory units in all three cases, we discuss the strategies and tools used to handle them. This study shows that exploratory unit managers rely on alternative innovation management tools, elements of EO, and collaboration with external parties to handle the challenges that emerge in delivering innovation.

In Food Inc. the exploratory unit relies mainly on the Stage Gate model, which has been used in the organization traditionally, and has recently adopted the Lean Start-up methodology. Chen (2017) states, that the Stage Gate model is not an appropriate method to guide innovation projects in exploratory units, however, Sonenshein (2010) (as cited in Stensaker, 2018) argues, that radical renewal is easier to carry out when it is based on familiar methods and procedures. Thus, it appears that in Food Inc., the Stage Gate model provides familiarity and proof of project viability, which is often required by the top management team. This helps the manager of the exploratory unit to deal with resistance to change in the top management team, and to manage the beginning stages of the culture transformation in the company overall.

The exploratory units in Care Inc. and Food Inc. use the Lean Start-up methodology to varying degrees. Due to the extensive prototyping, testing, and experimenting done in order to ensure the product fits customers' needs and preferences, risk and uncertainty are

significantly reduced. This accommodates the perceived risk averse top management and the natural uncertainty that is associated with innovation processes (Mueller & Thoring, 2012).

Because failure is perceived to be unacceptable by the exploratory unit in Care Inc., the Lean Start-up additionally serves as a means of eliminating the risk of failure in innovation projects and, thus, complying with the existing top management requirements and culture. Therefore, the Lean Start-up method also relieves some of the personal challenges experienced by the employees in the exploratory unit.

Additionally, the Lean Start-up appears to aid in cultural transformation towards adopting a higher level of acceptance for innovation by promoting risk taking behaviors through experimentation and, thus, allowing the manager and the employees of the exploratory unit to cope with the uncertain environment associated with exploratory activities. This is especially relevant for Food Inc. and Care Inc. where the top management is perceived to be risk averse.

In addition, due to its focus on optimization the Lean Start-up method eliminates unnecessary costs (Mueller & Thoring, 2012). This allows the exploratory units in Food Inc. and Care Inc. to undertake projects despite not having the desired level of financial support from top management.

In combination with its cost efficiency, the Lean Start-up method helps the exploratory unit managers to gain trust from top management and prove the viability of the exploratory projects in the cases of Care Inc. and Food Inc., respectively.

Being less formal than traditional innovation management tools, the Lean Start-up methodology is used to promote creativity and change the culture towards embracing innovation in all three cases.

Due to the wide range of similarities between the Lean Start-up methodology and other alternative innovation management tools, especially Design Thinking, it appears that the ability to reduce the risk of failure, eliminate some of the cost-sensitivity in innovation, and foster a more innovation focused culture is not exclusive to Lean Start-up methodology.

In addition, our findings suggest that in order to handle the challenges related to the perception of innovation in top management and the organization overall, as well as ultimately access the desired resources, the managers of the exploratory divisions cooperate with external parties, such as consultants, researchers, governmental institutions and other companies. This is done with a goal to form collaborations, share ideas, hold and participate in workshops and inform top management. In Care Inc., the manager of the exploratory unit notes, that involving external parties serves as a tool to create a sense of urgency for the

long-term challenges and initiatives in top management, which ultimately frees up resources. In Food Inc. collaborating with external parties and open innovation is said to offer access to knowledge, financial resources, and the ability to prove the need to innovate to the top management.

In all three cases elements of EO allow to further handle the challenges encountered in innovation projects, and two dimensions have been adopted in all three cases - innovativeness and autonomy. In the three companies innovativeness and autonomy is manifested through the nature of the structurally ambidextrous solution, which assigns a separate, autonomous unit to pursue innovation efforts (Tushman & O'Reilly, 1996).

Our informants note, that occasionally locating exploratory project teams physically outside the established business can enable the exploratory unit to behave more like an independent start-up and avoid having to fight for resources internally.

Bank Inc., however, has strongly shown additional elements of EO, namely risk taking and proactiveness, not present in the other two cases to the same extent. Not only is the exploratory unit less dependent on predetermined innovation opportunities, which in line with Chen's (2017) proposition allows them to engage in more opportunity-seeking behaviors, but they also benefit from the ability to take more risks due to the small size and agile decision-making processes.

In all three companies competitive aggressiveness is present and strengthened due to being part of an established company, with access to resources and well-developed core competencies. Competitive aggressiveness allows the companies to further demonstrate the viability of the innovation projects to the top management by actively pursuing competition. By facilitating more risk taking behaviors, EO allows to build a culture that fosters an entrepreneurial mindset and is more compatible with innovation.

On the whole, in order to handle the challenges encountered when delivering innovation, alternative innovation management tools, elements of EO, and external collaboration appear to be exceptionally useful. How, and to what extent each method is present, varies on a case-by-case basis.

6. Conclusion

This section provides the answer to the proposed research question. In addition, it includes a discussion of the contribution to existing ambidexterity literature, future research suggestions, managerial implications, and limitations of the study.

The objective of this thesis was to study the challenges encountered by the manager of the exploratory unit when delivering innovation and how the manager handles the challenges. In order to answer the research question, we conducted a comparative case study. Our data was gathered mainly through nine semi-structured interviews in three companies: Care Inc., Bank Inc., and Food Inc. This allowed us to gather in-depth insights and develop an understanding of the challenges present in each case and the approach used by the managers of the exploratory units to handle the challenges.

In order to establish a thorough understanding of the findings, we deemed the literature on organizational ambidexterity as an appropriate choice for framing the context of the challenges present in the exploratory unit. In addition, we reviewed additional literature on innovation management tools and EO.

Our findings extend the body of existing ambidexterity literature in several ways. First, we identify a number of challenges experienced by the manager of the exploratory unit. This includes the perceived lack of resources in the exploratory division, tension between the exploratory and exploitative divisions, uncertainty, the perceived lack of tolerance for failure, resistance to change, and transformation of culture, beliefs, and perception of innovation in the organization and top management.

In addition, the manager of the exploratory unit encounters the challenges of perceived risk aversion, the need to continuously demonstrate the viability of innovation ideas and prove the importance of adapting a long-term perspective and embracing innovation. Further, a recurring set of beliefs among the managers of exploratory units was present, including the notion that innovation success is highly dependent on trust from top management and an optimal balance between autonomy and attention.

Second, we identify the strategies and tools used by the manager of exploratory unit to handle the challenges encountered when delivering innovation. These include various

alternative innovation management tools, adaption of EO elements, and collaboration with external parties.

With the help of extensive experimentation, testing, prototyping, cost-cutting focus, and significant user-centricity, alternative innovation management tools like Lean Start-up are used by the manager of the exploratory unit to manage innovation despite the perceived insufficiency of resources. In addition, these elements foster the ability to handle uncertainty and the perceived risk-aversion of the top management, transition the culture towards embracing innovation, creative behaviours, and failure as part of the innovation process, as well as demonstrate the viability of innovation projects.

We observe that the Stage Gate model was used in the early stages of introducing innovation culture. In line with Stensaker (2018), we find that this could create a sense of familiarity among top management where a new type of innovation is adopted, as well as to formally demonstrate the viability of innovation ideas.

EO helps the exploratory unit to function in a more independent manner and maintain a sufficient degree of autonomy. Additionally, it appears to assist the manager of said unit in transforming organizational culture, demonstrating the viability of projects to top management, and enabling access to resources.

External parties are involved in order to facilitate access to resources, transform the culture, beliefs and perception of innovation both in top management and the organization overall, inform the top management and demonstrate the importance of adopting a long-term focus and encouraging innovation.

These findings are relevant for practitioners attempting to manage exploratory divisions and deliver innovation projects in ambidextrous organizations. Our thesis highlights the challenges managers of exploratory units can anticipate in their work and, most importantly, it suggests tools to be used in order to handle them. This thesis shows different ways in which managers of exploratory divisions could benefit from applying innovation management tools, elements of EO, and collaboration with external parties to handle specific challenges and circumstances. This thesis also brings attention to the phenomenon of balancing attention-seeking and autonomy-seeking from the exploratory unit's perspective in structurally ambidextrous organizations.

We have identified several potentially interesting future research avenues. Additional research to gain more knowledge on the optimal relationship between the exploratory unit

and the exploitative unit would be beneficial to understand how the exploratory unit's autonomy impacts their innovation efforts. In order to foster the understanding of different forms of organizational ambidexterity and how they impact the ability of the exploratory unit's manager to deliver innovation, it would be beneficial to research the challenges encountered by the managers of exploratory divisions in cases that represent all three forms of ambidexterity: structural, contextual, and sequential.

When discussing the limitations of this thesis, it is important to acknowledge that the findings are likely to be relevant only for cases where the manager of the exploratory unit is also part of the top management. This has direct implications for negotiation power of the exploratory unit's manager and the relationship between the top management and the exploratory unit. It is difficult to estimate how different the challenges would be in the case of not having a member from the exploratory unit represent its interests in the top management team. The cases examined in this study represent only a small fraction of industries, therefore, the ability to generalize the findings to other industries is limited and extending future research of the phenomenon to other industries would significantly improve this. Finally, all three cases represent companies headquartered in one Scandinavian country, due to possible cultural differences our findings cannot be directly generalized to other countries, therefore, future research would benefit from examining the phenomenon in other countries.

7. References

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8. Appendix

8.1 Appendix A - Interview Guide

Background information

1) Please tell us about your current position and what your work consists of. What is your background; education, training, previous positions in or outside of the company.

2) Please tell us a little bit about the company and how you work with innovation in this company?

   a) Have you experienced that the environment (context) that [company name] operates in has changed over the last years?

   b) In your experience, has the way the company works with innovation changed over time?

3) There is a pressure that companies today need to explore/innovate beyond the company's core business and core competencies. How do you experience that [company name] manages this? (e.g. outside existing divisions or areas, new products or in new associated categories)

   a) Is there a separate division/unit that is responsible for innovation? Is this where you work?

   b) Do you have any thoughts on how the company at the same time manages the continuous improvement of the existing competencies and core strengths of the company?

Innovation processes and stages

4) Please think about two concrete innovation processes: one that worked really well and another one that was more difficult (success – decision to launch). Let's start with the successful one, please walk us through the process:

   a) Who initiated the innovation opportunity?

   b) How autonomously can you work – how much involved is top management and/or others in the company?

   c) What (if any) types of challenges did you encounter?

   d) How did you deal with these?

e) What type of support and resources are you dependent on to deliver on innovation?

Now – please walk us through a more challenging example and compare and contrast. What are some of the key differences in innovation processes that go smoothly vs. More problematic ones.

5) Please tell us about how you work with and manage innovation processes?
   a) Have you used any of the following innovation management tools: Stage Gate, Lean Start-up, Design Thinking?
   b) What types of issues or problems do you encounter during innovation process? Please illustrate with a concrete example.
      i)   Are any problems specific to a particular innovation stage?
      ii) Do any problems reoccur?
      iii) Are there any problems that are exceptionally difficult to deal with?
      iv) What kind of support do you need to succeed with innovation and from whom?

Leading the ambidextrous organizations

Now, we'd like to ask a bit more about the exploratory unit; how it's managed and how it functions together with the rest of the organization.

6) What personal qualities do you think are the most important when leading the exploratory unit?
7) What is the feedback and reward system like in the exploratory unit? (e.g. what behaviours are rewarded, what happens if someone's ideas fails or you make a mistake?)
8) Does the exploratory unit and the operational unit have separate strategies, cultures, behaviours?
   a) How do they differ?
9) Who in the organization detects new innovation opportunities?
   a) How are they detected?
10) How does the company deal with potential contradicting demands and logics that exist between the operational and the explorative unit? (e.g. in the exploratory unit you might

experience the need of less specific budget constraints, more collaboration outside the company, higher risk taking focus on radical innovation rather than incremental, and growth and risk taking rather than cost and efficiency)

    a) How do you experience the top management approaches this contradiction?

    b) Do you experience that the top management tries to lead the exploratory and operational units differently as compared with the rest of the organization?

11) In the exploratory unit, to what extent do you collaborate with external companies (entrepreneurs, competitors etc.)

    a) How does these potential collaborations look? (Open innovation)

EO

12) To what extent is it important for you to develop an EO in the exploratory unit? If important, how do you do this? Is it tied to recruiting the right people (externals or internals), the right mindsets/capabilities, or is it developed internally through specific working methods etc.?

13) Do you engage in creative behaviors (such as generating ideas) and experimentation (such as prototyping)?

    a) What challenges do you experience when it comes to successfully undertaking creative activities and experimentation?

    b) What support from top management do you need in order to successfully undertake creative activities and experimentation?

14) Do you agree with the following statement: "In the exploratory unit, we constantly seek for new business opportunities, try to predict future market conditions, and launch products and services ahead of competition"?

    a) What challenges do you experience with these activities?

    b) What support from top management do you need in order to successfully undertake these activities?

15) How does environmental uncertainty influence your way of managing the exploratory unit?

    a) To what extent do you work under extreme uncertainty?

    b) How do you deal with this?

    c) What support from top management do you need in order to successfully operate in highly uncertain circumstances?

16) How much attention do you pay to outperforming competitors?

      a)   What challenges do you experience when it comes to outperforming competitors?

17) What support from top management do you need in order to defend the market position of new ventures and outperform competitors?

8.2 Appendix B - Consent Form

Informed consent form – FOCUS research program
NHH Norwegian School of Economics

The FOCUS-program is a collaboration between NHH Norwegian School of Economics and six Norwegian-based multinational firms. One goal of the research program is to develop knowledge on the topic of organizational ambidexterity, more specifically, the exploratory unit's perspective in managing innovation efforts.

We invite you to participate in an interview lasting 1 - 1,5 hours. The interview will be recorded and notes will be taken during the interview. The interview will then be transcribed. Any information that could identity individuals will be removed (e.g. your name). Only persons participating in the interviews will have access to material that can identity informants. Five years after the project is finished, all information identifying informants will be destroyed and data will be entirely anonymized.

Participating in the project is voluntary. You can withdraw at any time. The researchers in the FOCUS program will have access to the transcribed interviews, and they have signed confidentiality agreements. In some cases a follow-up study will be carried out. If so, you will receive new information and a new invitation to participate.

The data will be used for research, i.e., production of scientific articles and reports.

By signing this form you consent to participate in the study. If you have any questions regarding this invitation, or you wish to be informed about the results of the study, please contact us at the address below.

Sindija Liepina, NHH   Cornelia Lindqvist, NHH
E-mail: E-mail:
Tel.:   Tel.:

Informed consent form:

I have received written information and I am willing to participate in this study.

Signature ………………………………. Phone number ……………………………..

Printed name……………………………………………………………………………