

Management Control Systems and innovation processes in Norwegian SMEs

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Abbreviations

ABC – Activity Based Costing
BSC – The Balanced Scorecard
CP – Concept Development
EO – Entreprenurial Orientation
ERP – Enterprise Resource Planning
IEO – Individual Level of Entreprenurial Orientation
LOC – Levers of Control
MCS – Management Control System
NPD – New Product Development
PD – Product Development
SME – Small and Medium-sized Enterprise

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Abstract

The aim of this master thesis is to explain how management control systems, creativity and innovation are related to each other.

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1. Introduction

Today's society is characterized by swift social, political, and technological development. Innovation is among the critical success factors for firms to gain a competitive advantage in a rapidly changing and increasingly challenging environment. "The effect of innovation is to transform a firm's inner capabilities, making it more adaptive, better able to learn, to exploit new ideas" (Neely & Hii, 1998, p. 5).

Following the agricultural revolution and the industrial revolution, some would argue we are in the midst of a "third wave" of change (Neely & Hii, 1998, p. 3). Consequently, as innovation is a central driver of value creation (Bisbe and Malagueño, 2015), it has become increasingly important for firms' managers to implement effective and efficient control systems and performance measurements to trigger and manage these innovation processes. However, the complexity of innovation makes this implementation hard to achieve; thus, few extensive management systems of innovation can be found, especially in the smaller firms throughout the vast business landscape.

The design of the MCS has to account for the influence of several various contextual factors such as the size of an organization or the type of innovation, indicating no single best design for such a system (Lill et al. 2020; Frezatti et al., 2015), because it is challenging for firms to balance the need for control on the one hand against the need for flexibility to innovate on the other hand (Lukka & Granlund, 2003), a poorly designed MCS that compromises said balance could instead act as a hindrance to innovation. However, most previous studies concerning the field of MCS regarding innovation have focused on large corporations. As the backbone of the Norwegian economy is smaller firms, or more specifically small and medium-sized enterprises (SME), our thesis aims to systematically analyze and evaluate existing performance management systems regarding innovation in Norwegian SMEs.

1.1. Structure of the thesis

This thesis consists of six main chapters. Chapter 1 contains the introduction to the thesis as well as a description of our study. The literature review, along with the theoretical framework, is presented in chapter 2. Hence, this chapter provides an overview of the existing literature on the subject of management control systems regarding innovation, as well as containing the description of the theoretical framework on which we build intuitions and interpret our results. Next, in chapter 3, we describe the methodology of the research

process. Chapter 4 presents empirical findings from our interviews before we, in chapter 5, provide answers to our research questions. Lastly, the thesis is summarized in chapter 6. This chapter also discusses constraints and limitations with the study. and presents suggestions for further research.

1.2 Research questions

This master thesis aims to explore existing performance systems for innovation in Norwegian SMEs. Thus, the overall problem statement for this thesis is to: *"investigate and explain how existing management control systems influence creativity and innovation processes in Norwegian SMEs."* Most of the studies on this topic state an empirical opinion about what MCS would be a better fit for large firms in stable environments. However, there are few studies about MCS for SMEs regarding innovation. Hence, we explored a relatively unknown field guided by the following underlying research questions:

RQ 1: Which control systems and levers of controls are utilized most frequently in Norwegian SMEs?

RQ 2: Do Norwegian SMEs use control systems that constrain or enhance the innovation processes?

In order to elucidate the research questions, we have conducted a multiple case study to gain a holistic perspective on the topic at hand. Further, a qualitative approach was chosen to study these case subjects as Barros & Ferreira (2019) argue that this method better "is able to bring to the debate the complexity of control, innovation and the two realities combined."

1.3 Motivation for the thesis

Our primary motivation for writing about this topic is that we are fascinated by business management and innovation. We have, through experiences, comprehended how vital innovation is for competitiveness, survival, and organizational performance. We know that innovation will be a big part of our lives in the future, and this is a field that we would like to work within. Further, during our master's program, we have had courses regarding management control and innovation, which have taught us the basics we would wish to build upon with this master dissertation.

1.4 Empirical

The discussion section of this dissertation is based on qualitative interviews. The interview objects consist of leaders in five different SMEs responsible for the innovation processes in their respective companies. The interviews have allowed us to get a broader view of how

each company continuously works with innovation to improve. We also understand their MCS and how each MCS has worked so far for the company.

1.5 Case subjects (or participants)

As mentioned above, we have conducted a multiple case study. However, due to privacy reasons, we are obliged to anonymize our case subjects (herby referred to as participants) in this dissertation. Nevertheless, we will still try to present them in an enlightening way so that the readers can obtain a more profound understanding of the results later in this thesis, as well as the dissertation in general

According to NHO's criteria, all participants or companies we have studied are all defined as small- and medium-sized firms, meaning that the number of employees in each company lies between 1-100 (NHO). However, to make it more relevant concerning the questions we wanted to answer with our study, we narrowed down the list of potential participants by decreasing the interval of employees our case subjects could have. We settled at an interval of 5-50 employees as companies with 1-4 employees most likely are too small to hold any significant formal rules or control systems. Further, we also excluded companies with more than 50 employees because we wanted to focus on as small companies as possible but still give ourselves a broad enough interval to have a sufficient number of companies to ask to cooperate for this thesis. During a pandemic, it is never easy to find leaders within companies willing to take a significant chunk of time out of already packed days to talk to two simple students. In the end, we managed to find five relevant companies that were interested in collaborating with us, which we will now present anonymously:

Participant #1: Is a beverage manufacturing company with less than 15 employees with an ambition of being nr. 1 in its closet geographical area within few years.

Participant #2: Is a transporting company looking to expand nationally. Less than ten employees are working directly within the parent company, while it indirectly employs over 30 people.

Participant #3: Is a young consulting company with less than ten employees trying to compete in a challenging and "more experienced" industry.

Participant #4: Is a company that works to deliver automation processes to customers, a relatively new and inexperienced industry in Norway. The company has between 5-20 employees.

Participant #5: Is an organization that delivers sustainable solutions to create a more sustainable society. The company employs less than 20 people today.

2. Theory and literature

This chapter will dig deeper into the most relevant area in our study and present the theory of MCS, innovation, and creativity. This is important because it is essential to understand the underlying theoretical concepts before reviewing the literature. Thereafter, we will combine the different areas by seeing how they work together and the impact they are making.

Literature review

Reviewing relevant literature is vital to increase our understanding of the topic and make sure the things we learn consist of quality work. We have been using peer-reviewed research papers and textbooks to gather information, minimize bias, and ensure transparency. As shown in the table below, we have been using a systematic literature review with a predefined protocol to find the most relevant articles for our thesis.

Inclusion criteria	I1: Focus on an important theme within the aspects of MCS and/or innovation I2: Case studies, surveys or summaries done to explore within the MCS field and innovation. I3: Peer-reviewed
Exclusion criteria	E1: It costs money E2: Sole focus on a specific country or a specific geographical location E3: Sole focus on large corporations

We used the database *Scopus* and followed the structure review template by Saunders et al. (2019) using predefined keywords in the “search,” “inclusion,” and “exclusion” fields. The search at the beginning was at a general level in terms of words regarding the topic and narrowed down afterward to get the most relevant and suitable research papers for our topic. After narrowing it down to the most relevant articles, we ended up with 20 articles. The number of articles we used for our thesis further increased due to other relevant articles within the 20 articles, resulting in a “snowball effect.” The research papers were then read and compared to locate key information to extract.

2.1 Conceptual underpinnings

2.1.1 Management control systems (MCS)

MCSs are defined as "all the devices or systems managers use to ensure that the behaviors and decisions of their employees are consistent with the organization's objectives and strategies" (Merchant and Van der Stede, 2012, p. 6). Looking at the history of MCSs, the initiator to change from traditional and classical accounting to control was Ross Walker. The purpose of changing into a more control-oriented management system was to ensure "an adequate supply of successful operation" instead of limiting human behavior (Zeff 2008, p.181). A more known person who had a vital role in the change to MCS was Robert Anthony, who created the accompanying textbooks "Planning and control systems." In the consequent year, he continued this course but changed its title to "Management Control Systems," which brought the term for the first time in the academic world (Otley 1994).

2.1.2 Innovation

There are several definitions of innovation, and the term is continuously developing because of its broad exposure. Schumpeter, also known as the prophet of innovations, formulated the traditional definition: "innovation can be used to form a new product, a new production method, a new organizational structure, a new source of supply or the exploitation of new markets" (Barros, R. S. & Ferreira, A., 2019). However, for the past decades, the definition of the term has been changed and expanded many times. It is still difficult to give an accurate description of the term to this day.

The development of innovative products and product innovation, in general, is essential to increase a firm's performance and to gain competitive advantage globally (Dunk, 2011). This is also mentioned by Davila (2000, p. 383) as he discovered that "... innovation based on difficult-to-imitate capabilities as well as the development and exploitation of new products, gives the first-mover advantage, fast production introductions, more demanding product functionality, and shortening life cycles" and thus a sustainable competitive advantage.

When it comes to the innovation level in an organization, it is influenced by several factors. Among them are; leadership, training, employment management, rules, customer focus, creative thinking, and resources. These can both increase and constrain the innovation level of a firm. For example, too many rules in a firm may restrict the employees' abilities to look for creative solutions to their tasks. On the opposite side, a firm that solely focuses on its

customers might enhance the employee's ability to bring forward new innovative ideas to satisfy the customers' increasing demands.

A study that focused on instrumentals regarding innovation is *The performance effects of management control instruments in different stages of new product development*. This article reviewed 58 different MC instruments to identify patterns in the use of instruments that contribute to successful innovation. It also reviewed how each of the different instruments affects each stage of the new product development process (NPD), from concept development (CD) to product development (PD) to the implementation stage and classified the instruments as quantitative and qualitative instruments. Findings from the study revealed that CD stage offers the highest effectiveness for qualitative instruments. However, in the following stage, their contribution to the NPD process declines in the stage-specific performance. Quantitative instruments, in contrast, are more efficient during the implementation stages, while their contribution to the early stage of the NPD process is less critical (Munck, J.C., Tkotz, A., Heidenreich, S. and Wald, A. , 2020).

There are many types of innovation. Product innovation is the most common form, but other types like service, process, and channel innovation exist. It is necessary to distinguish between radical, sustaining, disruptive and incremental innovation. We have interviewed five different SMEs who work in different sectors and use different kinds of innovation.

2.1.3 Creativity

Like innovation, there is also a broad definition of creativity. Creativity requires the ability to produce novel outcomes, high quality, and appropriate to the task (e.g., Sternberg, Kaufman and Pretz, 2002). It is also important to mention creativity for our thesis as these two terms are connected.

To compare creativity to innovation, West (2000) expresses, "creativity is the development of ideas, while innovation is the application of ideas." based on the last formulation, it would be difficult to measure creativity because it can consist of many factors. However, there are three common approaches to measure product creativity: indirect measurement, global judgment, and criterion-based measurement. (O'Quin and Besemer (1999). Further, a positive tone among team members can enhance creativity in a business (Estrada et al.,1994).

2.1.4 SMEs

Small and medium-sized enterprises "...are often defined by what they lack, namely resources (capital or human, a many-layered management structure, access to international or complex

market" (Gilmore et al. 2013). Therefore, what distinguishes SMEs from larger companies is the size, limited resources and managerial style, and how they interact with the environment (Brouthers & Nakos, 2004).

Our study will discover how SME's work with innovation in Norway. This topic is interesting because there exists little research about this subject. All the big companies like Apple, Tesla, and Telenor, to name a few, have their innovation department(s) and written, formal systems to control these processes. These companies also stand for most of the news regarding innovation, with organizations of such sizes usually being the focal point for researchers. However, the majority of businesses are defined as SMEs. Thus, SMEs are vital to value creation and employment across the globe. Looking at statistics, SMEs account for about 99 percent of businesses worldwide, with the same percentage in Norway (Gilmore et al., 2013). Further, the importance of SMEs will continue to increase as, according to Worldbank estimates, the growing global workforce will require 600 million jobs by 2030 (The World Bank). These are the reasons for our attempt to understand how SMEs can develop their systems and processes in order to be competitive.

2.2 Literature review & theoretical framework

2.2.1 MCS for innovation

The role of MCS in innovation is changing rapidly. MCS has been seen as a hindrance to innovation in earlier studies as it constrains creativity, freedom, flexibility, and experimentation. On the other side, MCS can have positive effects such as helping the decision-making process, facilitating the flow of information, encouraging creativity, and orienting managers to opportunity-seeking behaviors. *Bridging management control systems and innovation* reveal that management control systems have traditionally focused on efficiency. Since there was a high probability of failure for innovation, MCS activity was regarded as inefficiency back in the day. Instead, the focus of the traditional MCS was to "... make sure that processes delivered the value they were projected to generate, promoting the execution of the same routines in companies with little or no change." (Barros and Ferreira, 2019, p. 8).

According to Simons (1995b), managers in this era exercised control by telling employees how to do their jobs and constantly monitoring them to avoid surprises. This behavior limited the innovation in the firm due to a lack of creativity. In addition to that, the type of MCS where financial measures account for "everything" in a firm was less relevant during the later years due to technological improvements. The competition occurred on a bigger scale and in

a fast-paced, changing environment. Nevertheless, Abernethy and Brownell (1997) discovered that personal forms of control were preferable in such contexts after researching organizations with a high probability of uncertainty. Further research stated that companies must adopt more flexible and responsive structures and management styles (Ashton et al., 1995) to be able to respond more quickly to changes. These findings led to the development of new techniques such as *Activity-based costing* (ABC), *Enterprise resource planning* (ERP), and the *Balanced scorecard*. The new form of control added the use of non-financial measures, recommended by Langfield-Smith (1997).

2.2.2 MCS for innovation in SME literature

There are few studies of MCS regarding innovation in SMEs, even though MCS can work as a mediator for innovation in so many ways (Davila 2015). Dean (1986) expresses that large firms' formalized management systems and procedures do not work for smaller firms. Therefore, instead of utilizing MCS frameworks used in larger firms, (Dean, 1986) explains that it can help to view the firm as a project and use project management techniques to control the innovation in the organization.

Peake et al. (2019) tried to get a more precise answer of how MCS affects the innovation process in SMEs by exploring how MCS mediate the relationship between the individual level of entrepreneurial orientation (IEO) and innovation. The research analyzed 185 firms in the South-Eastern areas of the United States. This topic is interesting because higher levels of EO are regularly linked to a company's ability to utilize new opportunities through the development of innovative solutions. Further, MCS can play an essential part in mediating between IEO and innovation. Peake et al. (2019) divide the MCS into financial and non-financial MCS such as human resource-oriented mechanism as a mediator and reveal that IEO is vital for innovation levels in small firms, both radical and incremental. IEO levels are significantly linked to higher levels of management control. Non-financial control (i.e., controls based on human resources) mediates part of the relationship between IEO and different approaches to innovation. It suggests from the findings that investments in personnel management control play a significant role in facilitating the company's innovation. However, there was no evidence that financial management control would be suitable for innovation in this study concerning small firms. This condition would be interesting to explore in our research to discover if there are any similarities. (Peake et al., 2019).

2.2.3 MCS as a package

Several studies have shown how single components of control and few instruments of control systems affect the innovation processes in businesses. However, the findings in these studies have resulted in limited valuable information. Therefore, applying a more comprehensive and integrative approach has been suggested (Haustein et al. 2014).

Studying MCS as a single instrument may not be the most optimal solution, and there are several reasons for that. First, Chenhall (2003) states that single individual subjects and practices sit within a broader control system even though they seem unrelated to each other and the context in which they operate. In other words, MCS does not exist in isolation. Instead, they are a part of a more extensive system. Another reason why studying MCS as a package can be more beneficial is because other controls, such as administrative and cultural controls, can complement and strengthen financial performance. However, this field is still unknown since most management accounting research has studied accounting-based controls focused on formal systems.

Malmi and Brown (2008) prefer the term 'package' to 'systems,' as the concept of a package indicates that individual systems are designed and implemented by different actors at different periods in time. Central to the package approach is the idea that MCS directs employee behavior. This understanding of MCS was early absorbed by Otley (1980) who wished for a broader approach towards MCS study. In particular, recent research suggests that none of the existing conceptualizations fulfills the current needs to accommodate a wide range of actors (Malmi and Brown 2008). Therefore, to analyze the concept of MCS, it would be essential to use textbooks. Thus, we have used Simons (1995) and Merchant & Van der Stede (2003), who have their own MCS framework. According to an exploratory survey, their books are also included in the top MCS textbooks (Straub and Zecher 2012). The following subchapters will present some of the existing MCS frameworks relevant today and include more different types of measures.

2.2.4 The balanced scorecard (BSC)

The balanced scorecard is a crucial MCS conceptualization. In addition to traditional financial actions, the balanced scorecard contains a set of measurements that give the manager a comprehensive look at the business. Instead of relying on the financial measurement, it gives a more widespread view by including external environments. Thus, the balanced scorecard tells the story of a company's strategy.

Translating Vision and Strategy: Four Perspectives

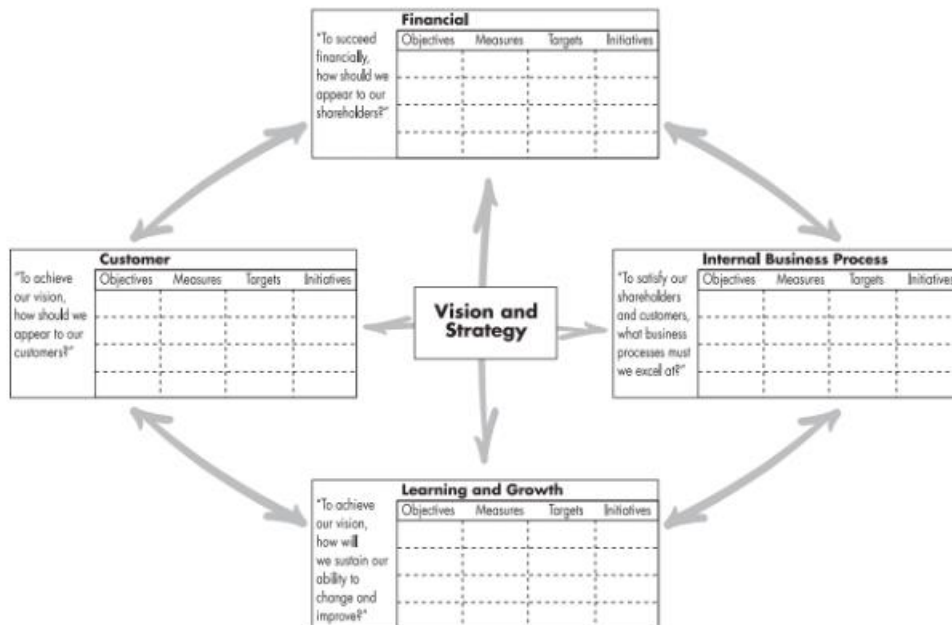


Figure 1: Translating Vision and Strategy: Four Perspectives

Each measurement in the BSC forms part of a link between cause and effect. Eventually, all measures are linked to organizational results. The results and the performance drivers should be balanced. Now, the balance scoring card has become more critical because the value source has shifted from material to intangible assets. It enables firms to track financial results while monitoring progress in capacity building and the immaterial assets they need for future growth. One of the most important things with this system is that it transforms the short-term activities into long-term objectives and is more long-term oriented in terms of success than traditional MCS.

Further, The BSC is more focused on the vision and strategy part instead of control and is challenging to balance because there is no correct way to weigh measures to achieve the perfect balance. When implementing the BSC, businesses make four principal errors

- that measures are not linked to the strategy correctly
- links are not validated
- the performances target is not set properly
- the measuring is incorrect

Because of the sole focus on vision and strategy, and performance of the organization instead of control of innovation, we will not proceed with this MCS for our research (Kaplan & Norton, 1992)

2.4.5 Object of control

The Object of control is another MCS system we should consider using for our thesis.

Merchant & Van der Stede's (2012) object of control framework classifies four categories of control: results, action, personnel, and cultural control.

Result control influences each individual's action and behavior because it makes the employees think about the consequences of their actions.

Action control makes the employees act in the organization's best interest, which can be behavioral constraints and action accountability.

Personal control is about self-motivation where the aim is to find self-motivated employees

Cultural control is designed to encourage mutual monitoring.

These are formal types of control because the control systems are initiated by the management and operated through continuous monitoring. The development of codes of conduct, the mission statement, group-based rewards, as well as physical and social arrangements can, for example, foster cultural control. The framework includes both direct and non-direct control types. The direct types are typically administrative related with result and action control. In contrast, the indirect types are personal control and cultural control, which affect the motivation and monitoring of the employees (Merchant & Van der Stede, 2012, p.88 and p.90).

2.4.6 Simons levers of control

Simons (1995) framework focuses on the fact that using different forms of control such as social, cultural, and direct monitoring makes it possible to achieve organizational control.

Further, he states that "the use of MCS in an interactive manner supports idea generation and opportunity-seeking behaviors and as such the framework has attracted interest from researchers focusing on innovation" (Martyn et al., 2016)

Simons has a bottom-up perspective where he uses a feedback mechanism between goals, action, and business strategy integrated. This can be described as innovation and control as MCS gets the opportunity to re-influence strategy because it may emerge out of patterns when it comes to action. (Strauß, E., Zecher, C, 2012)

Compared with Merchant & Van der Stede's (2003) conceptualization, these two systems have some in common. However, Simons (1995, 2000) is different in using "innovation and control" to understand MCS. Another thing that separates Simons (1995, 2000) from the others is that he focuses on the business strategy with four levers of control for implementing the business strategy successfully: Belief systems, Boundary systems, Diagnostic Systems, and Interactive systems (Strauß, E., Zecher, C,2012)

Belief systems are, for example, a vision for the company, business idea, or value proposition, and are being used to "encourage the exploration of new opportunities – something that senior managers communicate formally and reinforce systematically to provide basic values, purpose, and direction for the organization" (Simons, 1995, p. 34). Interactive control systems are also formal control systems, similar to diagnostic systems such as budgets and KPI's. What separates these two systems is mainly that the managers use interactive control systems to involve themselves in decision-making. They use interactive systems for evaluation and to come up with new strategies. This kind of system can also foster the innovation- mindset of the employees. (Simons, 1995)

The diagnostic systems are used to ensure that the organization is working towards its goal. This can be done by, for example: monitoring the employees' performances through KPIs, rewarding and motivating the employees to do their very best. (Simons, 1995)

Boundary systems are "[...] explicit statements embedded in formal information systems that define and communicate specific risks to be avoided" (Simons, 1995, p. 39). It makes sure that the organization is following its strategy within the domain it can operate within.


Creating pre-defined boundaries can restrict the flexibility and creativity of the employees but are necessary to ensure control of the organization.

* Adapted from Kaplan & Norton, Figure 13-1, p. 349. Original source, Simons, p.159.

Figure 2: *Simons Levers of Control (kilde)*

Before each level of control is explained in detail, Simons (1995, 2000) distinguishes between positive and negative forces, which signifies his thinking of MCS. Simons refers to two levers: enabling and constraining, where enabling consists of beliefs and interactive control while constraining consists of boundaries and diagnostic control.

Figure 3: *Management Control (kilde)*



He further sees the different levers of control as a group like Malmi & Brown (2008). He cites, *“The power of these levers in implementing strategy does not lie in how each is used alone, but rather in how they complement each other when used together. The interplay of positive and negative forces creates a dynamic tension between opportunistic innovation and predictable goal achievement that is necessary to stimulate and control profitable growth”* (Simons 2000, p. 301).

“Formal and informal routines and procedures used by managers to maintain or change patterns in organizational activities” (Simons, 1995, p. 5). A balance of these four levers should create a dynamic tension between risk management and opportunistic innovation to be successful. Also, Strauß and Zecher (2012) reveal that LOC is most suitable for innovation activities. Since we are focusing on MCS for SMEs, we will use LOC as the MCS framework for our thesis.

3. Methodology

This section will explain our research process and justify our approach and choice of research methods to answer our research questions and *case* in this dissertation.

3.1 Research philosophy

The philosophical paradigm, or research philosophy, underpinning our research project, is essential to define because it will affect its design and execution, including data generation and analysis. Our research is built upon an interpretivism way of thinking since "...researchers need to make sense of the subjective and socially constructed meanings expressed about the phenomenon being studied" (Saunders et al., 2019, p. 179). For example, our research focuses on control systems in innovative SMEs. These systems are naturally influenced by the meanings and subjective interpretation of whom they are constructed (social actors/the managers). Thus, we aim to obtain a holistic overview of the factors influencing such systems in innovative SMEs.

Saunders (et al., 2019, p. 639) lists several important characteristics of interpretivism:

- "Reality" created by subjective social actors
- Multiple social realities exist as a result of different interpretations
- Interpretivist researchers typically undertake research inductively
- Qualitative data analysis
- Study of social actors in their natural setting

These characteristics of interpretivism affect our methods of choice later in the thesis, as we think that this underlying research philosophy best matches our research questions and the overall goal of the research project. We further take an inductive approach to the research, where our data collection is utilized to explore said phenomenon by identifying themes and patterns in the data before developing a theory as a result.

3.2 Research design

Research design "is the general plan for how you go about answering your research question(s)" (Saunders et al. 2019, p. 173), and facilitates a framework or an action plan for the research. The chosen research design defines the intended research object, the method for

data collection and analysis, research strategy, and the ethical issues and constraints one encounters.

Which research design one chooses is one of the first methodical choices one faces in the research process, and we distinguish between quantitative, qualitative, and mixed methods research design (Saunders et al., 2019, p. 174). For our study, we have chosen what is known as a *mono method qualitative study*. This approach is defined as a qualitative research design using only one single data collection technique with a corresponding qualitative analytical procedure. We have explained our choice in more detail later in this chapter.

3.3 Our participants as case subjects

As this thesis investigates how existing management control systems influence Norwegian SMEs' creativity and innovation processes, we first and foremost have to examine several companies and not one singular company. This approach is chosen to be able to answer our research questions concretely, based on an ample and sufficient amount of empirical evidence from a wide array of case subjects.

In addition to the criteria of size and being Norway-based companies, each of our participants is chosen based on the fact that they actively perform internal and/or external innovation processes to increase competitiveness and future value creation. The access to personal meetings with essential and relevant executives in each company has been a great help in understanding how SMEs handle such an important aspect of their business.

3.4 Research strategy

Past research implies that the complexity of the control and innovation processes, considering all the aspects that affect this relationship, makes it challenging to analyze and decide what type of control system is the most effective and efficient regarding innovation (Barros & Ferreira, 2019, p. 23). However, our research still aims to explore such existing systems in Norwegian SMEs, making this an exploratory dissertation. To achieve this goal, our choice of the research strategy is crucial. According to Saunders (2019), the research strategy acts as a methodological link between the research philosophy and the following methods to collect and analyze data (Saunders et al. 2019, p. 189).

Saunders further distinguishes between eight different research strategies — experiment, survey, case study, grounded theory - to name a few. The fact that we examine a specific phenomenon in five different companies classifies this as a multiple case study, which can be

described as an in-depth inquiry into a topic or phenomenon within its real-life setting (Saunders et al. 2019, p. 196). In contrast to an experimental strategy or a survey strategy, a case study can generate greater insight, leading to detailed, empirical descriptions and theory development.

3.5 Data generation

The research in this dissertation has a qualitative orientation due to this being a multiple case study — one of several strategies associated with qualitative research (Saunders et al. 2019, p. 180). *Qualitative data* are defined as "data derived from spoken words (verbal data), written, typed or printed words (textual data)" (Saunders et al., 2019, p. 638).

There are some choices to consider when it comes to data collection using qualitative techniques. However, the research strategy provides guidelines for specific suitable techniques for acquisition. Saunders (2019) highlights interviews and observation as appropriate qualitative tools when conducting a case study. Therefore, after assessing the research questions and consulting with the supervisor, we selected interviews as our primary data collection technique. Sadly, no participants had any documents that mapped processes of either management control or innovation for us to read.

Observation as an acquisition technique was also considered early in the research process. However, it was quickly ruled out as an option because longitudinal observation of five different companies would take up too much of our time. Additionally, the increased chance of covid infection and a crucial difference in the geographical location of the different participants made observation impossible based on the resources available. The latter constraint makes our study cross-sectional, meaning the study of our defined phenomenon was conducted at a set time.

Saunders et al. (2019) states that the nature of the research interview should be consistent with the research questions and objectives the interviewer(s) want to answer. The book further distinguishes research interviews into three different types (see figure 3.1): structured interviews, semi-structured interviews, and in-depth interviews. Moreover, the three forms have different traits. For example, structured interviews are often conducted with standardized questions using questionnaires. In this sense, a structured interview is a quantitative form. The in-depth interview, in contrast, does not use predetermined or written down themes or questions and can therefore also be referred to as an unstructured interview (Saunders et al. 2019, p. 438).

After an assessment, the semi-structured interview was found most appropriate as this form of interview acts as the “golden mean” between the two previously described forms. Several relevant and vital areas need to be covered during the interviews to answer our research questions. The semi-structured interview offers a standard procedure with a list of predetermined categories aligned with associated questions for each category. Thus, there is a structure at hand, but the interview form also opens up for follow-up questions. In other words, the order of the questions is not locked down and can help uncover information that may have been forgotten in the interview guide. This approach will allow us to compare our participants’ responses to each category and thus identify patterns in their behavior (Saunders et al., 2019, p. 437). As mentioned earlier, our chosen area of research requires in-depth insight, both overall and in specific areas. The characteristics of the structured interview made this form suitable for this purpose.

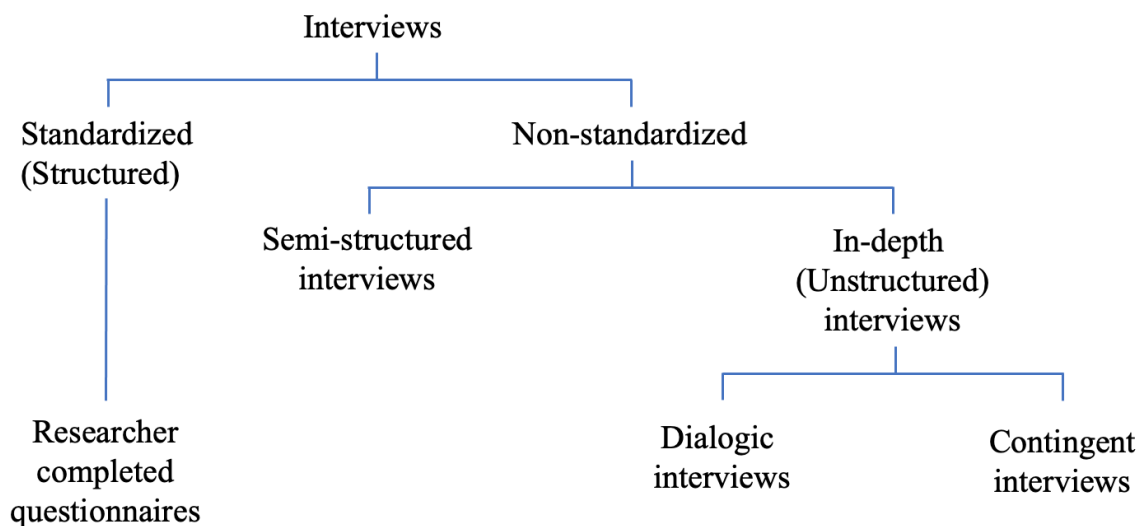


Figure 4: Interview Structures (Saunders et al., 2019, p. 437)

In order to be able to answer our research questions, we considered it most optimal to interview a highly ranked executive responsible for the management processes concerning innovation in each respective company. Thus, the interviewee from each company was exclusively the general manager, owner or a mutual partner. This constant is another critical factor in ensuring that the empirical data obtained from these interviews are directly comparable. Furthermore, the interviews were ultimately conducted as synchronous electronic interviews via Teams, a video conference service. Hence, the interviews featured both vision and sound for four out of five participants (only sound when interviewing the last participant), meaning we did not have the disadvantage of no face-to-face contact despite not meeting in person.

In preparation for the interviews, we read and analyzed peer-reviewed articles concerning MCS and innovation (see section 2: literature review and theoretical framework) to obtain the necessary knowledge about this topic to have comprehensive discussions with our interviewees. Derived from the literature and our experience of this particular topic, we designed an interview guide (see appendix) adapted to the chosen form. Saunders et al. (2019, p. 806) describe an interview guide as a "... plan for conducting a semi-structured interview containing opening comments, list of themes, questions and prompts to encourage discussion..." Thus, when designing the interview guide, we focused on designing it to move from general to concrete. The general and open questions should ensure a flowing conversation while giving us first impressions of their internal management systems and innovation processes. Hence, we gradually tried to uncover what they specifically relate to of systems in the company by following up with more concrete, predetermined questions in addition to improvised, elaborative questions.

The interview guide has two themes: innovation and management control systems related to innovation. However, the questions regarding control systems are divided into two parts; constraining and enabling levers of control (Baird et al. 2019), based on Simons levers of control (1995).

3.6 Data analysis

After obtaining the empirical data, the next step was to analyze and interpret the material. However, we already started analyzing a cursory level of the data between the interviews to be better prepared for the following interview and avoid data overload. The most comprehensive and time-consuming work was the transcription of the interviews. A total of five participants were interviewed, generating a large volume of transcribed dialog.

When deciding on a method of analysis for such a large volume of non-standardized data, various factors need to be considered. Firstly, as we have chosen an interpretivist research philosophy for this study, our analytical technique needed to be compatible with this. Thus, it was important that we allowed our participants' voices to emerge through our analysis, which is why we include participants' quotations (Saunders et al., 2019, p. 642). Secondly, this type of data is also considered highly contextual, and therefore, many qualitative analysis techniques involve fragmentation and reorganization, and sometimes reduction, of the data (Saunders et al., 2019, p. 642).

The method we found most appropriate to deal with these obstacles, which we primarily used, is the Thematic Analysis, considered the "foundational method for qualitative analysis"

(Saunders, p. 651). This method allows us to identify themes and patterns in the data set as well as different interpretations of a specific phenomenon, and it seemed like a logical approach. Thematic analysis is also somewhat straightforward compared to many other analysis techniques, giving us more time to make sure our analysis is accurate instead of focusing on the strict rules connected to different approaches.

One of the main elements in Thematic Analysis is coding the material to easier categorize data with similar meanings. Our approach to this step was to label various "units" of data in different colors, attributed to different keywords or categories. As we went through the transcribed interviews, we highlighted everything of interest and relevance. This approach actually helped us discover themes and patterns which previously were "hiding" in plain sight.

Chapter 4 deals with the thematic categorization of our data set, while the discussion and analysis in Chapter 5 tie the theory and empirical findings together.

3.7 Evaluation of the research design

Research can result in different answers to problems. However, a high-quality research design can reduce the probability of erroneous conclusions (Saunders et al., 2019, p. 213).

Thus, a selected research design, including case objects, data collection, and analysis, must be suitable, coherent, and have its purpose to answer the research questions in the best possible way.

When evaluating a chosen research design, the concepts of *reliability* and *validity* are central concepts of judgment regarding the quality of the research. Although their role concerning qualitative research is contested (Saunders et al. 2019, p. 213), we still choose to include them when evaluating our research design.

3.7.1 Reliability

"*Reliability* refers to the replication and consistency" (Saunders et al., 2019, p. 213). Research is considered reliable if another researcher replicates the research design, achieves the same findings, and can draw the same conclusions. Oppositely, different results at the next attempt when repeating the same research methods could establish a low degree of reliability.

However, there exist several threats that can brand research as unreliable. For example, the interviewee (participant) can be biased when answering questions or induce a false response based on other factors.

On the other hand, the researcher may misinterpret the answers to the respondent or even act biased in the interpretation. Hence, reliability is crucial for the quality of the research. Error or biased interpretations result in unreliable research as this will affect the results, consequently making the research invalid as well. Luckily for us, we are two researchers working together, which makes the interpretation of our data less biased and subjective, ensuring a higher degree of consistency within the research project.

In light of the interviews conducted in this research project, several elements are deserving of discussion. Firstly, the participants were informed in advance that their answers would be anonymized to ensure a more honest and subjective description of reality. However, before the interviews, none of the participants asked to review the questions or the complete interview guide, which might have led to misinterpretation of some questions. The advantage of this situation is thus receiving honest, unaffected and direct answers. Furthermore, following the interviews, none of the participants asked to review their answers. Due to this circumstance, they were not sent out. This factor may have affected the reliability as we can have misinterpreted the respondent's answers. Nevertheless, we again presume that this factor has contributed to more honest and unaffected answers.

Additionally, the interviews were recorded using both video and sound, allowing us to avoid potential misquotations and ensure correct statements. This insurance was, consequently, critical to us as the interviews were conducted and transcribed in Norwegian before they were translated into English when the quotations were to be included in the analysis. To avoid losing vital formulations and opinions of our participants in the translation, we aimed to translate their quotations as directly as possible.

3.7.2 Validity

Saunders et al. (2019, p. 820) define validity as the "1) extent to which data collection method or methods accurately measure what they are intended to measure. 2) Extent to which research findings are really about what they profess to be about." Researchers further distinguish between internal and external validity. Internal validity refers to the extent to which the research can prove a causal relationship between the findings and the phenomenon being researched, rather than any potential flaws in the research design. External validity refers to the general transferability of one research findings to other relevant contexts, such as relevant groups or similar research projects (Saunders et al. 2019, p. 213).

As for the selection of participants, some of our top picks went out of their way to contribute to our research project, but far from all. Optimally, we would have interviewed even more

case subjects for an even more extensive, and thus, more reliable data set. At the same time, we would also have preferred to study participants in the same industry who perform the same type of innovation. However, as the companies are approximately the same size and are in the same phase, they experience equal opportunities and limitations regarding innovation. The same applies to which performance systems can be employed to control this phenomenon in the best way. Thus, we consider our research to be valid and transferrable. The research design we have chosen and presented is based on the purpose of the study. By considering reliability and validity, and taking different implications of the various methods into consideration, we trust that our chosen methods prevent misinterpretations and misleading conclusions.

3.8 Research ethics

As researchers, we are obliged to act responsibly regarding the law and the code of ethics, requiring continuous reflection and evaluation throughout the research process. This responsibility applies to us in situations such as the confidentiality of sensitive information and plagiarism of other people's work in the thesis.

Prior to the primary data collection (the interviews), we were required to obtain formal approval from a Norwegian research ethics committee, NSD (Norsk senter for forskningsdata), for our proposed research before commencing the project. In the application, we formulated how to address ethical concerns in all parts of our research process, including collecting and handling data and sensitive information, on which we will elaborate in this section.

3.8.1 Informed consent

In every research project involving human participants, such as ours, ethical concerns are always significant (Saunders et al., 2019, p. 232). A critical ethical dilemma is obtaining the informed consent of participation. *Informed*, in this context, means that the interview objects are provided with information of the research's purpose and methodology, as well as the handling of the data. We facilitated formal informed consent by issuing a consent form by E-mail prior to the interviews, in which we provided all relevant information for the potential participants.

3.8.2 Recording of the interviews

We described our requirement to record the interviews to the NSD, which gave their approval. Moreover, the consent form signed by the participants provided both information and a question of permission for us to record the interview using both sound and video. This file was then encrypted and saved in a closed cloud system (OneDrive storage through UIAs Microsoft Office 365 subscription). Lastly, we transcribed the recordings before copying all files to ensure no loss of vital data.

3.8.3 Storage of data

As stated above, we stored all recordings and transcriptions regarding the interviews in a closed cloud system. We considered the OneDrive servers connected to UIA Office 365 subscription to be more the most secure option. Additionally, it was also one of the criteria stated by the NSD.

Each recording and interview transcribed as a word-processed file were given a coded filename to preserve the confidentiality and anonymity of the participants. Our codes are inspired by the system presented by Saunders et al. (2019, p. 646) as it codifies important information, seems logical, and means that each file is easily recognizable to us as its creators. Thus, the file known to us as “**4MPORGI**” is the transcript of the **4th** interview, **Male, Professional**, undertaken at **OrganisationI**, where “**I**” is the first initial in the company name. The files are deleted at the same time as the thesis is submitted.

4. Empirical findings

This chapter displays the empirical findings acquired during the interviews with our case subjects. Thus, the data presented emerge from the participants' own reflections, deliberations and opinions. The findings are further categorized into two main themes, (4.1) innovation and (4.2) control systems, to provide a deeper insight into how our participants view these important processes regarding their own companies. Sadly, we could not include all quotations we wanted to use as some of these could have contributed to an increased chance of breach of the confidentiality or anonymity guidelines.

We ask you, as reader, to take into considerations that these quotations are directly translated from Norwegian to English in order for them to be as correct and comparable to their original citations as possible.

4.1 Innovation

The importance of innovation

We have previously in the thesis described why we, as well as a large number of professionals and researchers, consider innovation and the systems controlling these processes to be vital for the competitiveness of all companies, including small and medium-sized enterprises. However, opinions on this topic may differ from executive to executive, and from company to company. Therefore, when we conducted the interviews, we asked the interviewees to openly assess the importance of innovation in their respective companies. The following is a description of how some of the interviewee's views innovation.

"Innovation is extremely important. We work in a rather immature market where a lot has happened in recent years. There is not much that is off the shelf, and then we have to develop the products ourselves." (Interviewee no. 4)

"... we have to create new products; we also have to continuously focus on finding a way to meet new and existing customer groups." (Interviewee no. 1)

As we can see, there is agreement among the participants that innovation is an essential field for their company. Product innovation is particularly highlighted as a focus area, as it should be. Additionally, the participants are also aware of the need for innovative solutions in all areas where it is possible to make money.

"... since we want to grow, it is extremely important that we are innovative regarding all kinds of possible sources of income." (Interviewee no. 3)

Several interviewees also mention that this way of thinking and its entailed measures have been critical in connection with the covid pandemic. In such a time of significant business decline, one has had to think innovatively in terms of both sources of income and innovative solutions to reduce cost. The latter includes developing a more efficient and modern way of operating a business to increase profitability or decrease losses.

To further illustrate the importance of innovation in the companies, several participants have implemented innovation as an important strategic element in their business.

"... continuous improvement is part of the quality standard. We have to think about continuity and progress all the time. Not just in the context of innovation, but really in everything you do in a business..." (Interviewee no. 5)

"The idea is always progressive, continuous, organic, good growth. It is never a goal that we should have THAT particular income for us to be full and happy. We are never full."
(Interviewee No. 1)

"Constantly while running your business, you need to be looking for improvements. It's also innovation, right? Finding out how to exploit available capacity." (Interviewee No. 3)

"We must constantly assess against our strategy on how we are going to be innovative. Focusing on few fields is a success factor for us. Being too wide does not make us good at anything." (Interviewee No. 4).

Although the potential benefits of innovation are clear, it does not come without risk. The risk is even greater for SMEs which often have a lower degree of solidity and liquidity compared to larger corporations. Sadly, it is not uncommon for innovation initiatives to fail or for companies to be unable to sustain and maintain the performance of such activities. Thus, it is vital for smaller companies to carefully map out structures and processes in their innovation strategy to maximize their chances of successful development.

"... we must focus on innovation in the right fields so that we do not waste resources."

(Interviewee No. 4)

However, there exist a number of different innovation strategies for companies to implement, including proactive, active, reactive and passive (Dodgson et al., 2008). As interviewee No. 4 states above, SMEs rarely have resources to waste. Additionally, this obviously means that smaller companies usually cannot pursue "extreme" innovation strategies, such as a proactive strategy, i.e., be market-leading. Instead, our respondents imply a more passive innovation strategy for their companies. Yes, they frequently carry out product innovation and innovative solutions based upon their own ideas. Nevertheless, they also regularly develop solely as a result of direct or indirect interaction with their customers, demanding a change in their products or services.

"For example, (...) is a product that we are pushed by the market to develop." (Interviewee No.

1)

"We have a very close dialogue with the customers to understand their needs, before we in the next round will understand which products we then have to develop and merge in order for it to be the product they demand." (Interviewee No. 4)

From the participants' answers, we learn that there are many similarities between the companies and the purpose they have for working with innovation. However, several researchers states that there is no universal system that works for all companies, and that an innovation strategy needs to be designed specifically for the respective companies. This leads us to the next section where we find out more about how our participants' work with innovation.

Working with innovation

To further explore the role of innovation in the companies of our participants, we asked them how they manage and prioritize certain factors concerning this concept. First, we wanted to know who generates the innovative ideas within the company and decides how and when these solutions should be implemented. These people can be informally be called their respective companies' "innovation department."

“The innovation department is me and two others. We are a small team of three entrepreneurs who started this, and it is we who think creative thoughts that we call innovation.” (Interviewee No. 2)

“My head is put together a bit ‘spaced’ because I think new ideas and new processes all the time. We have a couple of people in the company who hold me back a bit. At the same time, I drive on and continue to throw out ideas and solutions.” (Interviewee No. 5)

“It’s really mostly me. But it can sometimes also be a bit too much creativity, and you need someone who is good at implementing as well. I used to be much more in the detail management, but it does not get us good results and it is no fun for the others.” (Interviewee No. 1)

As we have mentioned earlier, and which is why we chose precisely these people as interviewees, these are managers who have the primary responsibility for all innovation processes in their respective companies.

Secondly, we wanted to unfold the amount of time spent on innovation-related activities, including idea generation, screening, planning, and implementation. However, it seems apparent that the participants have no set or formal plan for how much time is to be set aside for said processes. The replies we received are closer to general and straightforward estimations. Still, the estimations indicate that a notable portion of the work hours at the interviewed companies are dedicated to innovation.

“I have not set aside any specific time for it, and maybe I should do it. But let’s say at least a third of my job goes to that.” (Interviewee No. 1)

“I guess we spend 20-30% of the time developing our own products.”(Interviewee No. 4)

“We work to innovate all the time in a way, but it gets slowed down. For example, now, there has never been so little innovation because we have so many assignments. Thus, we do not have time to work internally with innovation.” (Interviewee no. 3)

The last quotation above scrapes the surface of an important point that must be highlighted in this context. The lack of a designated innovation department in small companies with employees who exclusively work with these types of processes, is a significant disadvantage.

In order for SMEs to survive, they, first and foremost, must cover short-term and fundamental necessities such as income and liquidity. To achieve this, direct income-generating operations are conducted, more often than not, before non-innovative and long-term operations. In other words, small firms often have to choose to survive at the expense of the opportunity for long-term growth.

Lastly, we asked the interviewees to specify which type of innovation processes that are carried out at the respective companies when actually innovating. This information would also give us a clearer indication of what they define as innovation.

“The news value is quite important. We have some trotters. And if we eventually see that sales are too slow, we swap them. Then we stop producing it and make something new instead. With new products, we try to clarify sales agreements with customers in advance ... before, we made a product much faster because we had faith in it, but now the sales job must be done in advance. There is no point in producing it just to have it in stock. (Interviewee No.1)

“Innovation is, for example, that I sat down during the night and created a new website that is faster and conveys our message better. And it is an innovation in itself for a company. It is a small type of little innovation, since it improves something that we had to do better.”

(Interviewee no. 3)

Interviewee No.1 verifies a somewhat passive strategic attitude to innovation in this quotation, but follows up that they also continuously search for measures to reduce cost and operate efficiently as well. Interviewee no. 3, on the other hand, describes an internal form of innovation for which the person in question has been the initiator and carried out. Further, the participant points out that they regularly take on new assignments within unknown fields to increase creative thinking and acquire new and improved knowledge for the company.

Interviewee No. 4 supports this method, and at the same time, seems to have an apparent and distinct system for determining new areas of development.

“We are a small and transparent organization, and we are very open to input, etc. But we must constantly assess against our strategy on what we are going to develop.” (Interviewee No.

4)

This assessment is performed through the use of overview scope and outline drawings. These methods aim to increase their understanding of which products or solutions to develop to

expand their existing portfolio of standard products by mapping out the risk involved in the respective alternatives.

4.2 Management systems and management tools

In addition to concentrating purely on the innovation process in the company, it is also vital to have an appropriate management control system in the company. As we have described in the previous chapter “Theory & Literature”, there are many varieties of control systems. For years researchers and executives have debated how control systems should be designed, i.e., what they must contain and how they should function (Simons 1995; Malmi & Brown, 2008). Although there is agreement that control systems do not generally stifle creativity and innovation, a poorly designed control system can do just that.

"... it is unbelievably difficult to balance, and formal control systems can prevent a lot from happening" (Interviewee No. 3)

How such a system should be designed in SMEs is particularly unclear, and is a little researched topic. This section highlights what our participants promote as management tools and management systems in their own companies.

Financial tools

When it comes to financial-oriented management tools, these are mainly represented by budgets and financial key performance indicators (KPIs) in this context.

Budget as a concept in innovative SMEs is a peculiar phenomenon. Traditionally, the budget is set once a year and is further assessed against previous accounting periods as a financial basis for comparison. Basically, budgets are utilized in all companies in one form or another. With our participants, there are significant differences in how budgets are used. For some, they are used in the traditional sense, and as the main tool for setting annual sales targets. For others, the budget is a rolling financial tool in order to be dynamic and agile in the market, closer to *Beyond Budgeting*. And in some special cases, no budget is used at all, as they do not have a budget from previous financial years to compare with. Additionally, the last year has also been a challenging year to have a budget as a financial foundation as business has not gone as usual due to Covid-19.

"We have a board because we managed to onboard very good people early on, and we notice that they are very anchored in budgets. Whether you want to call it budgets or financial plan is up to you, because in a way we do not have a budget because we have nothing to look back on. But we make a plan for what we should have in order for us to be able to pay our salary.

But that plan changes from month to month ... " (Interviewee No. 3)

"We do not have any set budgets." (Interviewee No. 5)

"We do not follow any budget, but we do monitor our profitability, invoicing rate and hourly budgets. That way we try to catch it early if things go wrong." (Interviewee No. 4)

Interviewee No. 4, in the last quotation, leads us into the topic of KPIs. They are used to measure predetermined financial performance targets such as *Quick Ratio* and *Gross Profit Margin*, or, regarding innovation, *Number of Active Projects* and *Income from new Products* - to name a few. However, KPIs are a challenging concept to balance as employees quickly can get a too short-term focus, which can stifle creativity and prevent long-term value-creating processes.

"When we started the company, we were very focused on having clear KPIs, and we had to have everything anchored. We had six driving KPIs...there was a lot of weird KPIs. We had to have strategy meetings every month and things like that, but we were quickly swallowed up in what WE call the "admin trap": there was too much focus on operations that do not generate income. The KPI we found to be best is Share of Billable Hours." (Interviewee No. 3)

"We measure profit ... that is perhaps what we measure the most. But I also think it is important to measure customer satisfaction and the ability to retain our customers."

(Interviewee No. 5)

The traditional approach of measuring through budget does not work with innovation. We note from the participants' responses that there are few with any formal and set KPIs regarding long-term, value-creating processes.

Operating tools

Operational tools are defined in this context as tools or systems regarding the daily operation of the companies, which also affect innovation. In this case, operational tools thus include the distribution of roles and responsibilities, culture and employment strategy.

Several of the participants define the allocation of responsibilities and roles as an essential system in order to be efficient in the company's day-to-day operations. This statement is very intuitive, and also applies to innovation processes. When a company has allocated responsibility and authority to a small number of people, which is the case with SMEs, important decisions can be made quickly and efficiently. When companies grow in size, this becomes more difficult because decisions are often connected to more extensive and formal processes.

“Accountability is also a control system. Allocating responsibilities is important. And it is a control system we have in relation to innovation, that we give people the opportunity to innovate. If you have any good ideas, get started, we welcome it with open arms.” (Interviewee No. 5)

“It is completely stupid to call yourself the director of a company when there are so few employees. Yes, you have to define areas of responsibility. You HAVE to do that, but it should only be based on what people are good at. It is also okay to name a general manager, it is required by law. But nothing more than that.” (Interviewee No. 3)

In order to have a creative, motivated, and innovative company, then the company's culture must promote these qualities. Culture is, unfortunately, a difficult thing to manage, but companies can introduce measures to solve this. Social gatherings, in particular, help raise general well-being and cohesion among both employees and management. However, to develop an innovative culture, management must encourage creativity and change among all employees to help innovative thoughts and ideas to flow through the walls. The road is short to grateful leaders for those who come up with good ideas.

“We give people the opportunity to innovate. I constantly get text messages from employees saying that they have thought of an idea for something that, for example, could be super cool to implement on the website that can increase sales. Great. And that shows that we are open for all possibilities.” (Interviewee No. 1)

In (...) culture is extremely important. If we notice that something is going on at the expense of culture, then it must be addressed immediately. If the culture breaks down, the house of cards collapses. (Interviewee No. 5)

The participants further emphasize that the most crucial ingredient for having an innovative culture, and thus an innovative company, is to have the right people. The employees must be creative, willing to change, and be motivated to move in the same direction as the company. Many interviewees believe that a good employment strategy is the key to this.

"It does not help that my head spins around to invent things if I do not have the others involved in it, so it has been a process of change. When I started, there were a number of older employees here, and they were not as willing to change. They are in a different position in life. Now there are young people working here, and everyone has a good attitude, and that is important in an organization. If someone has a negative attitude, it affects the whole organization." (Interviewee No. 1)

"It requires an organization that is young and interested, and such an organization takes time to build. It is not a given that one finds the right people who make the right choices and who have the right skills. Organizational leadership itself has become a much bigger factor than I thought it was. But when you are a leader yourself in the future, a good employment strategy will help you and the company well on your way." (Interviewee No. 3)

Other tools and systems

This section includes the remaining tools and systems that affect the level of innovation of our participants.

First and foremost, we experience that the participants emphasize communication- and meeting structures in the companies as an important system. These structures are not considered formal in the sense that they are not written down. However, there are reports for our interviewees regarding established routines and systematic meeting structure, frequency, content and communication channels.

We have quarterly meetings to come up with ideas, and it should also be easy for employees to come into my office to bring forward ideas they think would be cool to implement.”

(Interviewee No. 1)

“We have many team meetings. There are many status meetings for the projects and weekly status meetings in the company. There are also some meetings during the week, and a lot of continuous coordination.” (Interviewee No. 4)

“In (...) we have many meetings and are continuously in an innovation process. We have lots of workshops, we have weekly meetings that have specific goals and issues: every week. It is not a status update, it is: this has happened, how are we doing? This is today's challenge, let's solve it. And work very continuously there then.” (Interviewee No. 5)

The interviewees highlight a large number of regular meetings within the company. A large proportion of these also deals with innovation. Furthermore, they also report on direct communication channels between themselves and subordinates. Here, employees should be able to suggest ideas and creative thoughts freely to their executives. For several of these participants, their companies are currently so small and dynamic that decisions can be made and implemented within a very short timeframe, often just days.

“Decisions are made incredibly quickly. Just today, we have made three decisions about things that you are now asking about, and these will be implemented starting tomorrow.”

(Interviewee No. 3)

To conclude, we discovered many similarities between these five companies and which systems they chose to handle the innovative processes best. There are few systems and processes written down in the company's management documents, and thus formal by definition. They all want to have a culture that oozes innovation and creativity and thus focuses a lot on that. At the same time, a few of the companies have performance-based KPIs designed to obtain the results of the performed processes. This especially applies to innovation. Nevertheless, with fewer formal systems, SMEs have the ability to respond faster than the larger ones to change, which is an advantage.

5. Analysis and discussion

We will in this chapter discuss our findings in relation to the LOC framework and answer our underlying research questions mentioned in chapter 1.

As mentioned earlier in the chapter 2, the LOC framework is divided into four forms of controls: belief systems, interactive control systems, boundary systems, and diagnostic systems.

RQ1: Which control systems and levers of controls are utilized most frequently in Norwegian SMEs?

Results from belief systems:

Participant (1) is currently going into a phase of restructuring their organization. Therefore, they do not have a clear and formal value or vision. Based on the statement, we can assume that its employees do not receive information about the values and vision of the company.

However, the interviewee says that they are currently developing it.

Participant (2) shares the company's plan with all employees through physical meetings and internal forums. Hence, the employees get to see the direction in which the company is going and how they plan to; for example, make their customers happy. The company's concrete goals and ambitions in the future, such as goals for market share and expansion to different regions in Norway, can be perceived as motivation for the employees.

Participant (3) have a written mission and vision on their website. In addition to that, they also have concrete values written down in a personnel handbook. The Interviewee said that the company had devoted much time to constructing the mission, vision, and values. So much time, in fact, that it has been harmful to the company. He said further that they actually used more time on the administrative tasks than the operational work in the early stages.

Further, the company's vision has been illustrated to the employees through a drawing of a quadrat. This quadrat contained values and vision in the middle and company goals on a three-year and one-year horizon on the sides of the illustration. Then, the three-year and one-year horizon company goals were written down as an action plan.

The Interviewee also mentioned that too much focus on the planning tools could have a negative impact instead of giving positive results. He further told us that too much focus was related to planning in the company that the company went into something called "admin-trap." which he described as having too much focus on something that does not generate value to the business. The time was rather spent developing KPIs and strategies activities until they forgot to sell the products that generated value for the company.

Participant (4) has some drawings and formal methods to analyze and determine what products to develop. However, in terms of value and vision, we interpreted during the interview that the managers use no formal system to define and communicate the company's core values to inspire and motivate employees to take appropriate actions.

Participant (5) has a clear vision of where the company will be in 5 years. They have, for instance, made a cash-flow analysis and different prototypes of how their future machine is going to look and how it will operate. Further, they have made a long-term plan, which they update every three weeks in collaboration with the employees.

From the findings, we see that there are various belief systems in the different companies. However, there is no formal system used by the SMEs to communicate the companies' vision and values and inspire the employees. In general, these companies do not fulfill the requirements of the belief system.

Result from diagnostic systems

The diagnostic systems are used to ensure that the organization is working towards its goals. This can be done by, for example: monitoring the employees' performances through KPIs, rewarding and motivating the employees to do their very best (Simons, 1995).

We also discovered that most companies were using action plans and KPIs during the interviews. The action plan was regularly updated and used to monitor the company and individual progress. The companies use different KPIs, depending on what is in their interest to measure.

For one participant, these KPIs included measurements such as the number of products sold and the products' quality. However, the most relevant KPI was the measurement of the amount of time spent working on operational activities. The participants' other mentioned methods to monitor performances are systems like Trello, Toggle, and Monda, while incentives such as shares in the company and provisions regarding sales are frequently used tools for employee motivation.

From the findings listed above, we can see that most of the companies includes activities that fulfill the requirement of diagnostic systems.

Results from interactive systems

Interactive control systems are also formal control systems, similar to diagnostic systems.

What separates these two systems is mainly that the managers use interactive control systems to involve themselves in decision-making. They use interactive systems for evaluation and to

come up with new strategies. This kind of system can also foster the innovation- mindset of the employees (Simons, 1995).

Action plans were frequently mentioned by most of the participants. The managers in the respective companies used these action plans to involve themselves in the decision-making processes to a greater extent. An example is that the interviewee for a company told us that he used plan tools like Trello, Toogle, and Monday to set up the activities for the employees that had to be done in different periods of the week, month and years. Further, he explained that by using these tools, he could get an overview of how well the different departments and employees in the company were doing and that he could have a meeting with the employees to make adjustments if needed regarding the plan.

Other tools that were mentioned:

- "Best practice" is a tool where they continuously have meetings and evaluate and improve the tool. The information on different job tasks is also available, so they can use the available information to control the result.
- Profitability analysis and measurement on the value they generate compared with the times they have spent on the activities to measure the financial performances on the company. The manager can take justification under the process if, for instance, the profitability goes down.
- The written plan illustrates the company's progress. This plan is frequently reviewed and updated, such as every three weeks. In the financial part, they have a written formal cash flow with a 5-year horizon that they continuously analyze in the meetings.

Results from boundary systems

Boundary systems are "*[...] explicit statements embedded in formal information systems that define and communicate specific risks to be avoided*" (Simons, 1995, p. 39). It makes sure that the organization is following its strategy within the domain it can operate within.

There is a difference regarding fulfilling the requirements of this system when it comes to the different companies. Most of the companies do not have clear boundaries within the company. Some have simple rules, like meeting rules and shareholders agreements. However, this includes only shareholders and is not for the employees. As mentioned earlier, an exception is participant #3 that has a personal handbook. This handbook is delivered to each employee upon employment at the company. It contains the vision and values of the company, and instructions for various tasks. Additionally, they also have a board that

operates as a supervisor for the company, ensuring they do everything correctly while also offering help regarding budget questions and strategic decisions.

Our general findings show that most of our participants do not have a formal information system that defines and communicates specific risks to be avoided. One of the reasons for this could be because the companies are pretty small. Every employee knows each other, so it is easier for them to trust each other in doing the right things. Another reason could be that it would take many resources to make these formal systems, and SMEs are not particularly known for unlimited resources.

To answer our first research question; “which control systems and levers of controls are utilized most frequently in Norwegian SMEs?”, the answer would be that the diagnostic and interactive systems are clearly based on the participants we interviewed, which the findings above illustrate. Quite few participants had formal systems regarding belief systems and boundaries systems.

RQ2: Do Norwegian SMEs use control systems that constrain or enhance innovation processes?

When trying to answer the second research question, "do Norwegian SMEs use control systems that constrain or enhance innovation processes?" we will go through both theory and the interviews of the five companies to discuss how they can increase or act as a hindrance to innovation.

The first system, which is the belief system, encourages the exploration of new opportunities and provides purpose and direction for the organization. This can be seen as a lever that enhances the innovation if we look at it in the light of the traditional definition of innovation which is: "innovation can be used to form a new product, a new production method, a new organizational structure, a new source of supply or the exploitation of new markets." Barros, R. S. & Ferreira, A. (2019). We found out that most companies did not have a clear strategy communicated to the employees concerning our participants. This can constrain the innovation as Simons (1995) proposes.

Boundary systems, which are being used to avoid risk by setting up guidelines and codes of conduct, can restrict the flexibility and creativity of the employees (Simons, 1995, p. 39). However, this is a necessary task to ensure control of the organization. Regarding our interview, we found out that most of our participants did not have a formal information

system that defined and communicated specific risks to be avoided. According to Simons (1995), this would enhance innovation due to fewer restrictions and more flexibility.

Diagnostic systems ensure that the organization is working towards its goal (Simons, 1995, p. 39). According to Simons, this is being used actively by the companies we have interviewed and are viewed as a hindrance for innovation.

Interactive systems are activities that managers use, allowing themselves to be involved in the activity, and could be much of the same activities as the diagnostic system Simons (1995).

Most of the companies we have interviewed have integrated this system into their businesses.

This could enhance innovation in the company.

Conclusively, based on the interviews with our participants, we have discovered that most of them have focused on two of the levers of controls: diagnostic and interactive systems. The diagnostic system is seen as a hindrance, while interactive are enhancing innovation, according to Simons (1995). Therefore, the Norwegian SMEs we have interviewed use a control system that is equally enhancing and hinders innovation.

6. Conclusion

6.1 Conclusion

The overall problem statement for the thesis is to “investigate how existing management control systems influence creativity and innovation processes in Norwegian SMEs.” In order to answer the problem statement, we had first to gather information about creativity, innovation, and factors that influences those terms. Afterward, we discovered the different existing management control systems and the influences they could make on innovation, as discussed in chapter 2.

We chose the Simon levers of control framework to help us gain more knowledge about our problem statement. Earlier research implies that the LOC framework works best for innovation activities and is the main reason we chose it. LOC framework focuses on the four levers of control: Belief systems, Boundary systems, Diagnostic Systems, and Interactive systems Simons (1995). A balance of these four levers is necessary to implement a successful innovation strategy (Strauß, E., Zecher, C,2012).

We have interviewed five SME's in Norway, discovered which was the management in the different companies can be related to the LOC framework and further how the LOC framework can influence the creativity and innovation process in these companies.

Our findings show that most of the interviewed participants had management systems that could go along with diagnostic systems and interactive systems. However, the boundary and belief systems were hardly found in the different companies. The lack of balance between the four levers of control limits the different companies' opportunities to be innovative, just like Simon (1995) distinguishes between positive and negative forces, which signifies his thinking of MCS. He explains how the LOC can be used to influence innovation processes in this way: "The interplay of positive and negative forces creates a dynamic tension between opportunistic innovation and predictable goal achievement that is necessary to stimulate and control profitable growth" (Simons 2000, p. 301).

6.2 Implications & constraints

Due to limited time and complications in connection with Covid-19, it has not been possible to go into depth on the matter to the extent we might have wanted. The information regarding management systems and innovation processes was exclusively mapped during the interview

rounds with the participants. Additionally, the fact that none of the companies have documents describing these essential elements means that several management tools or other key factors may not have been elucidated.

Another important constraint is the fact that we have only interviewed one person from each company. This person has chiefly had the role of CEO or been considered a mutual partner to the company's CEO. Further, the person we have interviewed is the one in charge of the MCS and innovation part of the respective companies, as this is the most relevant role for our research. However, in retrospect, it would perhaps be more beneficial to interview other employees in these companies to gain a broader perspective.

A final limitation we had to pass was that few companies would take the time to contribute to our research project. They either did not see the value in our research or had more important, operational tasks to do. Ironically, this is a factor that is highlighted in the thesis. Regardless, this meant that we had a scattered selection of participants across location, industry, and type of innovation. At the same time, this resulted in a more holistic picture of a new research topic.

6.3 Suggestions for further research

In the aftermath of the study, we do see a couple of elements that may be interesting to shed light on in further research of this case regarding management control and innovation processes in SMEs.

Suppose someone were to pick up the thread where we left off. In that case, it could be appropriate to investigate a more extensive number of companies included in the study, preferably within the same industry and with the same type of innovation. It can also be advantageous to delimit the geographical area of the participants to a greater extent.

With our methods and selection criteria, our research is a good starting point. However, the result of our study is more to be regarded as a general indication of how these processes are managed in Norwegian SMEs, rather than an established and unshakable actuality.

By concretizing and narrowing down the participants' selection criteria, it will be possible to discover differences between industries, companies with different types of innovation and geographical zones, or perhaps confirm clear connections instead. In any case, it will be easy to change focus groups according to interest, where a more comprehensive and correct answer will take shape as more studies are completed. The increase in the number of participants is to increase the reliability and validity of the research.

Other essential elements that it may be appropriate to focus on or add to new research, will be collecting several types of primary data, such as observation. By simply observing, one can, at best, get confirmation of what one has learned from the interviews or, at worst, have everything refuted. It can also be advantageous to conduct interviews with employees other than those who have the overall responsibility for managing the innovation processes in the company, as these can have a slightly different perspective on the matter.

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Appendix

Interview guide

1. What is the latest innovative solution/product you have implemented/created?
(warm-up question)

2. How important do you consider innovation to be for your company, or in your industry in general, and why?
3. How is your company innovative (product innovation, market innovation etc.)?
 - a. Is it a clear organizational strategy?
4. Belief and boundary systems:
 - a. How do your employees understand what they are expected to do or to accomplish, and how do you communicate it to them (not only specific tasks, but also mission and vision of the organization)?
 - i. Core values?
 - ii. Mission and vision?
 - b. Do you have channels for innovation related topics?
 - c. How do you approach and process the innovative ideas that the employees come up with? (What is your process to taking ideas forward)?
5. What is your company's limitations to innovation (resources such as financial, time, personnel, knowledge, etc.)? (Interactive and boundary systems)
 - a. How large proportion of your company's cost is delegated to innovation/R&D?
 - b. How do you encourage collaboration across the departments (interdisciplinary cooperation)?
 - c. Have you been as innovative as you wish to be?
6. Which management instruments do you use to control the innovation of your company (what are the qualitative and quantitative instruments that you use)? (Interactive control systems and diagnostic)
 - a. Which instruments do you use in the different phases (CD, NPD, IP) and has it been successful?
 - b. Have you changed the instrument combination in the recent years, and, if so, what have been the result?
 - c. How do you as a manager monitor, interact and control the innovation process in the company?
 - d. How do you measure the economic value created by your company's innovation processes?
7. How has the corona virus situation affected your company's ability to innovate?
8. How do you see your company working with innovation in the near future?

Discussion Paper – «Ansvar»

Presentasjon av min masteroppgave

In min masteroppgave har jeg, sammen med min partner, valgt å forske på hvordan små- og mellomstore bedrifter (SMB) i Norge bruker innovasjonsprosesser for å kunne være konkurransedyktige innenfor sine respektive industrier. Vi har valgt dette temaet fordi dagens samfunn er karakterisert av store og raske politiske, sosiale og teknologiske samfunnsendringer. Samtlige organisasjoner blir påvirket av disse endringene, og for å kunne være konkurransedyktige i slike omgivelser, må selskapene være agile og tilpasningsdyktige. Selskap med høy grad av innovasjon oppfyller disse betingelsene. Samtidig medfører innovasjonsprosesser økt fremtidig verdiskapning da konseptet også posisjonerer selskapet til å utnyttelse av nye og moderne ideer (Neely & Hii, 1998, p. 5).

Videre i oppgaven utforsker vi kontrollsistemene som selskapene bruker for å kunne fremme, samt kontrollere, disse innovative prosessene. Dette er komplekse systemer, og ethvert system må tilpasses hvert enkelt selskaps egenskaper og mål for å kunne fungere optimalt. Ved ytterste konsekvens kan et dårlig designet system bidra til å hemme innovasjonsnivået i stedet for å fremme det, og dermed også minske selskapets konkurransedyktighet.

Det meste av tidligere forskning gjort innenfor dette feltet har vært fokusert på større selskaper med mye ressurser (tid, kapital, kunnskap og personell), og som dermed har gode forutsetninger for å kunne drive med innovative prosesser uten at det går på bekostning av det operasjonelle i bedriften. Likevel er det slik at SMB utgjør majoriteten av virksomhetene verden over. I Norge defineres SMB som selskap mellom under 100 ansatte og utgjør mer enn 99 prosent av virksomhetene i landet (NHO, 2021). SMB er dermed utrolig viktig for nasjonen samlede verdiskapning, og er grunnen til at vi ønsket å se nærmere på slike virksomheters fremgangsmåte, muligheter og utfordringer når det kommer til fremtidig verdiskapning. Jeg vil påstå at det er så meget på tide at det kommer frem slik forskning.

Vår fremgangsmåte for forskningen har vært å utføre en multipel casestudie med en kvalitativ orientering da Barros & Ferreira (2019) argumenterer for at en kvalitativ metode er bedre for å diskutere den utfordrende balansegangen mellom kontroll og

innovasjon. Vi intervjuet fem personer med hovedansvar for innovasjonsprosessene i hver sin bedrift. Dette er altså personer fra selskaper vi anser som innovative. Vi følte det å kunne intervju personer fra et flertall forskjellige bedrifter ville gi bredere og dypere innblikk i fenomenet på samme tid.

For å til slutt kunne dypt utforske prosessene og systemene i de forskjellige selskapene analyserte vi empiriske funn fra intervjuene opp mot vårt teoretiske rammeverk beskrevet tidligere i oppgaven. For å kort beskrive vår konklusjon, så oppdaget vi det var mange likhetstrekk mellom disse fem selskapene og hvilke systemer de har valgt for å kunne håndtere de innovative prosessene. Det er få systemer og prosesser som er nedskrevne i bedriftens styringsdokumenter, og dermed *formelle* per definisjon. De ønsker alle å ha en kultur som oser innovasjon og kreativitet, og fokuserer dermed mye på det. Samtidig har fåtallet av selskapene prestasjonsbaserte gode måleparametere designet for å plukke opp resultatene av de prosessene som utføres. Særlig gjelder dette innovasjon. Likevel, med færre formelle feller har SMB muligheten til å reagere raskere enn de større på endringer, som er en fordel.

I etterpåklokskapens navn har vi sett at forskningsdesignet kunne vært designet enda bedre, og forskningen bedre planlagt for et enda mer nøyaktig og valid resultat. Men det er noe vi henter stor lærdom av og gjør at vi er bedre forberedt i fremtiden.

Ansvar

I denne neste seksjonen skal jeg ta for meg begrepet *ansvar* og drøfte dette sammen med etiske problemstillinger, opp mot forskjellige temaer i sammenheng med vår masteroppgave. Først og fremst kan det dermed være smart å definere begrepet jeg skal diskutere. Store Norske Leksikon (Tranøy, 2021) definerer begrepet ansvar som en forpliktelse å stå til rette for. Videre skilles det mellom juridisk ansvar og moralsk ansvar, hvor jeg vurderer begge versjonene til å være relevant i denne sammenheng. *«Moralsk ansvar innebærer forpliktelsen til å forsvare eller rettferdiggjøre handlinger under henvisning til en moralsk norm, regel eller autoritet, for eksempel samvittigheten. Juridisk ansvar vil si å være følgene av skadegjørende handlinger eller unnlater, særlig i form av straff eller erstatningsplikt. Det kalles også ansvarlighet. Det er mulig å kontrahere vekk juridisk ansvar. Det kalles da ansvarsfraskrivelse.»* (Tranøy, 2021)

«Ansvar» i relasjon til oppgavens tema

I sammenheng med masteroppgaven har vi påtatt oss et visst ansvar ved valg av selve temaet. Hvis en ser bort fra de juridiske følgene som kommer ved en eventuell avvisning av vår masteroppgave, vil jeg derimot tørre å påstå at det moralske ansvaret vi har på våre skuldre som et resultat av vårt tema-valg, er påtatt med gode hensikter. Vi ønsker med vår forskning å genuint kunne bidra til økt verdiskapning og konkurransedyktighet for en virksomhetssektor som per dags dato utgjør over halvparten av verdiskapningen i landet (NHO, 2021). I tillegg er dette et ganske vanlig scenario verden over, og vår forskning kan potensielt sett overføres og utnyttes på tvers av landegrenser, og ikke bare her til lands. I en drømmeverden vil dette bidra til at det oppstår større konkurranse i flere markeder, og dermed mer innovasjon og bedre vilkår for sluttkundene. Dette er også et veldig aktuelt tema da «endringsbølgen» i samfunnet ikke ser ut til å minke med det første.

Det oppstår derimot et stort problem hvis vår forskning er invalid og unøyaktig, og følgelig leder til beslutninger for bedrifter som påvirker dem negativt. I et slik tilfelle vil vi selvsagt ikke måtte stå juridisk ansvarlig, men det er vårt moralske ansvar å utføre og fremstille forskningen på en så korrekt og god måte som mulig.

«Ansvar» i relasjon til våre forskningsspørsmål

Vår overordnede problemstilling lyder som følger:

«Undersøk og forklar hvordan eksisterende kontrollsystemer påvirker kreativitet og innovasjonsprosesser i norske SMB-er».

Denne problemstillingen ble supplert med flere underliggende forskningsspørsmål:

- 1. Hvordan tilnærmes utviklingen av innovative løsninger i norske SMB-er?*
- 2. Hvilke kontrollsystemer og kontrollspaker benyttes hyppigst i norske SMB-er?*
- 3. Benytter norske SMB-er kontrollsystemer som begrenser eller forbedrer innovasjonsprosessene?*

I denne sammenheng har vi som forskere ansvar for å legge opp til at det teamet og den problematikken vi velger å undersøke faktisk kan presentere ny kunnskap ved prosjektets slutt. For at dette skal være oppnåelig er vi helt avhengige av å stille de riktige spørsmålene på en god måte, og inkluderer både den overordnede problemstillingen og de underliggende forskningsspørsmålene.

Hvis det overnevnte målet ikke oppnås kan vi holdes “juridisk ansvarlig” i form av at vi kan få utdelt strykkarakter på oppgaven. I en slik situasjon har vi dermed ikke gjort det

som er forventet av oss for å kunne bestå. Og hvis vi i dermed, i tillegg, hadde prøvd å fremstille noen andres verk som vårt eget, berøres både den moralske og den juridiske siden av ansvarsbegrepet. Heldigvis kan vi, etter utallige timer på leting etter samme eller lignende forskning, være sikker på at vårt forskningstema nærmest er uberørt og dermed vil presentere noe nytt. Dette gjelder både internasjonalt og særlig nasjonalt.

«Ansvar» i relasjon til våre funn

Når det gjelder våre funn berøres ansvarsbegrepet først og fremst i sammenheng med at disse skal være *pålitelige* og *valide* (Saunders et al., 2019, p.2013) slik at den informasjonen vi med dette forskningsprosjektet tillegger temaets kunnskapsportefølje er korrekt og kan anvendes trygt videre.

Forskningen, og dermed funnene, er pålitelig dersom en annen forsker oppnår de samme resultatene med å gjenskape forskningens design og fremgangsmetode. Feil i prosessen vil føre til følgefeil gjennom hele forskningen og dens sluttresultat, i.e. funnene. Dette kan for eksempel være feil i innhenting av data, unøyaktig metode for analyse eller subjektiv tolkning av oss (forskerne) på en eller flere viktige elementer. Det medfører at dersom forskningen er upålitelig vil den også være invalid.

Validitet defineres som i hvilken grad datainnsamlingsmetoden eller -metodene nøyaktig måler det de er ment å måle, samt i hvilken grad forskningsfunnene egentlig handler om det de bekjenner seg til å handle om (Saunders et al., 2019, p. 213). Det må med andre ord være mulig å bevise en kausalt forhold mellom funnene og forskningen som er gjennomført av fenomenet i fokus. Det mener vi at vi har gjort, og at våre metoder har forhindret feiltolkning og misvisende konklusjoner i forskningen. Dersom dette viser seg å ikke være tilfellet vil vi likevel ikke utfordre ansvarsbegrepet på noen sterk måte, verken den juridiske eller moralske siden. Som to nye "forskere" har vi gjort det beste vi kan med de forutsetningene og ressursene vi hadde til grunn, og vi vil kun stå videre ansvarlig for å lære av denne erfaringen og anvende lærdommen ved neste anledning.

«Ansvar» i relasjon til våre forskningsobjekter

Som nevnt tidligere har vi intervjuet fem forskningsobjekter i denne masteroppgaven, og som forskere er vi dermed forpliktet til å opptre ansvarlig med hensyn til loven og etiske koder. Dette utfordrer med andre ord ansvarsbegrepet både i juridisk og moralsk

form, og gjelder særlig for oss i situasjoner angående konfidensialitet av sensitiv informasjon i sammenheng med våre studieobjekter. Grunnet disse prinsippene måtte vi, på forhånd av intervjuene innhente en formell godkjenning av *Norsk Senter for Forskningsdata* før vi kunne starte på prosjektet.

Til tross for at ansvar er det store temaet her, så kan det deles inn i mindre deler. Det første er ansvaret om informert, skriftlig godkjenning fra våre intervjuobjekter før vi skulle sette i gang med intervjurundene. Her hadde vi først og fremst ansvar for å informere om hvordan vi planla å håndtere den konfidensielle informasjonen som intervjuobjektene kom til å oppgi. Dette kan potensielt sett inkludere bedriftenes, intervjuobjektene og andre ansattes navn, som gjør det mulig å spore dem opp. Videre kan det inkludere sensitiv finansiell og operasjonell informasjon fra selskapet som kan skade deres rykte og/eller operasjonelle aktivitet dersom informasjonen skulle komme på avveie.

For eksempel tok vi opp intervjuene med bruk av både lyd og bilde for å kunne gjengi situasjonene mer nøyaktig i oppgaven slik at konklusjonen og funnene skulle være mer pålitelig. Disse filene ble derfor kryptert og lagret i et lukket skysystem (UIAs OneDrive-lagring) før vi transkriberte opptakene og kopierte alle filene for å sikre tap av vitale data. Vi betraktet OneDrive-serverne som var koblet til UIA Office 365-abonnement som det sikreste alternativet. I tillegg var det også et av kriteriene som ble oppgitt av NSD. Hvert opptak og intervju som ble transkribert fikk et kodet filnavn for å bevare konfidensialiteten og anonymiteten til deltakerne. Kodene våre ble inspirert av systemet av Saunders et al. (2019) fordi systemet kodifiserer viktig informasjon, virket logisk og betydde at hver fil var lett gjenkjennelig for oss. Filene gikk derfor under navn som for eksempel "**4MPORGI**" - transkripsjonen av det **4.** intervjuet, **Male**, **Professional**, foretatt i **OrganisationI**, der "I" er den første initialen i firmanavnet. Til slutt opplyste vi om at filene kom til å slettes samtidig som avhandlingen leveres.

Da vi skrev om disse deltakerne i, for eksempel, analysedelen av oppgaven, var opplysningene vi oppga så diffuse verken selskapene eller personene er mulige å gjenkjenne. De ble som regel bare henvist til som eksempelvis «intervjuobjekt 1» eller «deltakerne», og eventuelle sensitive opplysninger som inngikk i brukte sitater ble byttet ut med «(...)».

På en slik måte sikret vi oss fra å bryte både juridiske og etiske koder, og oppfylte på lik linje vårt moralske og juridiske ansvar i sammenheng med dette temaet.

Konklusjon

Etter å ha oppsummert forskningsprosjektets prosess og funn har vi diskutert elementer av forskningen i lys av begrepet "ansvar". I denne sammenheng kan vi konkludere med at vi som forskere stort ansvar, både juridisk og ansvarlig når en påtar seg en oppgave om å fremstille ny kunnskap. Først og fremst må en sørge for at prosessen og metodene som brukes gjør at funnene er pålitelige og valide, og dermed brukbare som utgangspunkt i ny forskning og/eller anvendbare i næringslivet. Dette starter med å stille de riktige spørsmålene og formulere dem på en gode måte. I tillegg har vi et ansvar ovenfor forskningsobjektene til å respektere deres anonymitet og andre eventuell ønsker. Forskingen må med andre ord utføres med integritet og ansvarlighet for at den skal være verdt noe som helst.

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DISCUSSION PAPER "INTERNASJONAL"

Jeg skriver sammen med min masterpartner en oppgave om hvordan eksisterende kontrollsystemer påvirker kreativitet og innovasjon i små og mellomstore bedrifter. Kontrollsystemer har jeg blitt bedre kjent med gjennom spesialiseringen i økonomisk styring, hvor jeg har lært effekten det har på bedrifter gjennom faget «management control systems». I tillegg har jeg lært om innovasjon og viktigheten av det å være innovativ for å

kunne være konkurransedyktig gjennom fagene «Gründer Lab and Entrepreneurship Laboratory» og «entreprenørskap og innovasjon», som jeg har hatt i løpet av studiet. Det å koble de to områdene sammen å se på kontrollsystemer opp mot innovasjon, er derfor noe jeg tenkte kunne være interessant å undersøke nærmere.

Undersøkelsene som har blitt gjort tidligere, tyder på at det er utfordrende for bedrifter å balansere behovet for kontroll på den ene siden mot behovet for fleksibilitet til å innovere på den andre siden (Lukka & Granlund, 2003). De fleste tidlige studier om dette gjelder også større bedrifter i andre land så å se nærmere på kontroll og innovasjonsprosessen i små og mellomstore bedrifter i Norge ville vært spennende. Dette er bedrifter som er mindre synlige i hverdagen og er lite forskning på når det gjelder kontrollsistemers effekt på innovasjonsprosessen. På den andre siden, er de små og mellomstore bedriftene viktige for samfunnet da de utgjør over 99% av alle bedriftene i Norge og er ryggraden i norsk økonomi (NHO).

I oppgaven har vi tatt for oss «Levers of control (LOC) rammeverket» som utgangspunkt når vi evaluerer innovasjonsgraden og kontrollsistemene som er blitt brukt i de enkelte bedriftene. LOC er et anerkjent rammeverk som har blitt brukt til å måle innovasjon i større selskaper og som av tidligere studier har blitt nevnt for å være det beste kontrollrammeverket som kan brukes til innovasjonsaktiviteter Strauß and Zecher (2012). Det unike med dette rammeverket sammenlignet med andre er at den består av flere målfaktorer hvis man setter det opp mot de tradisjonelle som har en tendens til å kun se på det finansielle spekteret koblet opp mot innovasjon. Simons (1995) hevder at ved å bruke forskjellige former for kontroll som sosial, kulturell og direkte overvåking er det mulig å oppnå organisasjonskontroll. Det interessante med dette rammeverket er at det også nesten bare har blitt brukt i store selskaper. Å se hvordan det ville ha fungert i mindre selskaper uten egne innovasjonsavdelinger, blir derfor noe nytt.

Selv om fokuset i oppgaven er på bruken av kontrollsystemer og effekten det har på kreativitet og innovasjon i små og mellomstore selskaper i Norge, er det viktig å poengtere at det også er relevant når man ser på store selskaper rundt omkring i verden. Som nevnt over, har det meste av forskningene om dette temaet tidligere omhandlet stort sett store selskaper i flere ulike land. For å gå dypere inn i oppgavens relevans i et større perspektiv, skal jeg videre se på hvordan kontrollsystemer og innovasjon kan være relevant når det gjelder internasjonale trender.

Internasjonale trender

Internasjonale trender blir definert som «en generell utvikling eller endring i en situasjon som påvirker mange land i verden» (“Cambridge dictionary,” n.d.)

Ut ifra definisjonen, kan det være mye forskjellig. En utvikling som har ført til endringer internasjonalt og som påvirker mange land er som de fleste vet, Covid-19. Dette har skapt store endringer på måten vi lever på og påvirket mange bransjer i samfunnet. Et av endringene som har påvirket oss er at vi har blitt mye mer digitale. Både forelesninger, jobb og til og med sosiale arrangementer har blitt arrangert gjennom applikasjoner som Zoom og Teams. Omfanget av digital interaksjon og tjenester har vært en økende trend de siste årene, men etter korona har det økt betraktelig. Digitalisering vil derfor være et av trendene jeg ønsker å se nærmere videre.

Digitalisering er å bruke teknologi til å forbedre, forenkle og fornye. Det handler om å tilby nye og bedre tjenester som legger til rette for økt verdiskaping og innovasjon. Digitalisering er den digitale transformasjonen samfunnet og økonomien står overfor (Sintef, n.d.).

Dette gjenspeiler seg i mye av det vi ser i hverdagen i dag. Eksempel på dette er de digitale tingene vi bruker som mobiltelefoner, smartklokker og pc-er. Disse tingene blir jevnlig forbedret, forenklet og fornyet. Det samme skjer i bankene, hvor teknologi blir brukt til å tilby nye tjenester. Mobilen brukes til å logge på nettbanken istedenfor kodebrikken og i nettbanken møter du som oftest på bots når du skal chatte om problemer. De fysiske kontorene blir færre, mens de digitale nettløsninger utvider seg. Digitaliseringen ser også ut som en trend som er kommet for å bli og som foretrekkes blant folk flest. Et eksempel er at Sbanken som er kjent for å være den mest digitale banken i Norge. De har utkonkurrert konkurrentene sine år etter år på kundetilfredshet, og det er rimelig å anta at digitaliseringen i banken er et av årsaken da man som kunde kan gjøre tilnærmet alt selv ved hjelp av deres digitale løsninger (BI, n.d.). Hvis jeg videre skal koble masteroppgaven mot digitaliseringstrenden, så er den veldig relevant. Vi prøver å finne ut påvirkningen ulike kontrollsystemer og instrumenter har på innovasjon hos små og mellom store bedrifter. Dette kan brukes i andre land hvor digitaliseringen også er en trend som f.eks USA. For å i det hele tatt bruke teknologi til å forenkle, forbedre og fornye, så kreves det innovasjon. Sannsynligheten er derfor stor for at de som har søkelys på digitalisering, også allerede legger vekt på innovasjon i selskapet. Dette fordi innovasjon kan brukes til å danne et nytt

produkt, en ny produksjonsmetode, en ny organisasjonsstruktur, en ny forsyningskilde eller utnyttelse av nye markeder og digitalisering ligger under denne kategorien (Barros, R. S. & Ferreira, A. 2019). Digitalisering fører til utvikling ved bruk av teknologi og med en god kombinasjon av kontrollsystemer i bedriften, kan digitaliseringen gå enda raskere og spare bedriften for unødvendige kostnader.

En annen internasjonal trend jeg ønsker å belyse er bærekraft. Bærekraft er et veldig stort tema og når man tar fram temaet snakker man ofte på bærekraftig utvikling. Bærekraftig utvikling blir definert som «En utvikling som imøtekommer dagens behov uten å ødelegge mulighetene for at kommende generasjoner skal få dekket sine behov» (FN, 2021). Dette temaet har vært relevant lenge, men i de siste årene har flere begynt å engasjere seg i temaet for å beskytte miljøet. Spesielt ettersom man ser effekten av de menneskeligskapte klimaendringene i verden. Greta Thunberg er et godt eksempel på dette, men også større virksomheter som Walmart og Nike har vært tidlig ute med fokus på bærekraft.

Engasjementet rundt temaet har ført til endringer rettet mot mer bærekraftige løsninger i store deler av verden. Eksempler på dette er at stadig flere kjøper elektriske biler, UiA har nylig endret fag på økonomistudiet hvor universitetet har bytte ut tradisjonelle økonomifag med mer bærekrafts orienterte fag som «Sustainable Capitalism». I tillegg merker man og at bedriftene har begynt å ta bærekraft mer på alvor som følge av presset fra omgivelsene. Istedenfor å kun fokusere på profitt, går de i større grad i retningen mot den grønne vekst, som er «økt verdiskaping med mindre samlet miljøbelastning» (BI business review, 2017).

Selskapene som har fokusert på bærekraftig blir også belønnet for dette tidlig, noe som igjen vil øke lønnsomheten for en bedrift med. Eksempler er kundelojaliteten øker, sterkere varemerke, nye inntektsstrømmer og større mulighet til å tiltrekke seg ansatte.

Oppgaven vår henger også godt sammen med den bærekraftige trenden da vi ser på kontrollsystemer rettet mot innovasjon, og ønsker å finne ut hva som øker innovasjonen i en bedrift. Kontrollsystemer og innovasjon kan brukes for å finne gode løsninger for å bli mer bærekraftige. Gode kontrollsystemer kan føre til økende innovasjonsgrad i bedriften, noe som igjen kan gi gode ideer for bærekraftige løsninger. Det kan derfor være nyttige for bærekraftige selskaper å se nærmere på kontrollsystemet de bruker for å bli mer innovative og finne flere måter å bli bærekraftige på.

Hvordan våre studieobjekter blir påvirket av de internasjonale trendene.

De internasjonale trendene har også en påvirkning på de 5 studieobjektene vi har:

- Det første selskapet vi intervjuet er: er et drikkevareproduserende selskap med mindre enn 15 ansatte med en ambisjon om å være nr. 1 i skapets geografiske område i løpet av få år.
- Det andre er: Et transportfirma som ønsker å utvide nasjonalt. Mindre enn ti ansatte jobber direkte i morselskapet, mens det indirekte sysselsetter over 30 personer.
- Det tredje er: Et ungt konsultentselskap med færre enn ti ansatte som prøver å konkurrere i en utfordrende og "mer erfaren" bransje. I trender og krefter.
- Det fjerde er: Et selskap som jobber med å levere automatiseringsprosesser til kunder, en relativt ny og uerfaren bransje i Norge. Bedriften har mellom 5-20 ansatte.
- Det siste selskapet er: er en organisasjon som leverer bærekraftige løsninger for å skape et mer bærekraftig samfunn. Selskapet sysselsetter under 20 personer i dag.

Alle selskapene er relativt ulike, samtidig blir de i en eller annen grad truffet av de internasjonale trendene fordi de omfatter så mange.

Digitalisering, fører til at selskapene må jobbe med kontinuerlig innovasjon og utvikling for å holde følge med konkurrentene og overleve i markedet. Da selskapene i utgangspunktet er relativt små fra før, er det ekstremt viktig at de tenker på kontinuerlig forbedring siden de kjemper mot selskaper som er mye større med mer ressurser, spesielt i form av kapital som digitalisering koster. Samtidig kan det være en fordel at de er små og mellomstore kontra store selskaper, fordi omstillingen for en mer digitalisert bedrift vil være lettere for en mindre organisasjon. Dette er noe som sannsynligvis kommer til å treffe alle bransjene uansett før eller siden, så det greit å være forberedt nå allerede nå.

Når det kommer til bærekrafts trenden, vil også studieobjektene vi har valgt bli påvirket. Bærekraft er viktig i den verden vi lever i nå av en rekke grunner:

- Kjøpesterke forbrukere etterspør bærekraftige produkter og at de produseres i tråd med høye etiske standarder.
- Store selskaper og offentlige virksomheter vil i økende grad ønske å kjøpe bærekraftige produkter fra sine underleverandører.
- Bedrifter vil oppleve at investorer og långivere i økende grad tester deres forretningsmodeller mot klimarisiko og hvordan de tar samfunnsansvar. Spesifikt bør

bedriftene reflektere omkring følgende: Dersom landene lykkes med å nå f.eks. klimamålene, hvordan påvirker det min forretningsmodell? Hvilke trusler og muligheter gir det for min bedrift? Bærekraftige bedrifter vil være bedre posisjonert for endrede rammevilkår i en mer klimavennlig retning.

- Fremtidens arbeidstakere ønsker å jobbe for bedrifter som bidrar til å løse vår tids utfordringer.

(NHO, 2020)

For de bedriftene vi har intervjuet, vet de nok allerede om trenden og flere har allerede satt seg inn i det med bærekraftige forretningsmodeller. I tillegg er bærekraft en voksende trend, så om de ikke skulle ha merket det enda, kan de forvente det i framtiden. Som argumentene ovenfor viser, så vil det lønne seg å endre kurs mot en bærekraftig retning og det kan være greit å endre kursen med engang, så slipper de det senere. Presset kommer nok ikke til å minske fra omgivelsene heller.

Konklusjon:

I denne oppgaven har jeg skrevet gjort rede for to av de internasjonale trendene og trukket inn hvor relevant temaet i masteroppgaven min er for nettopp disse trendene. Vi ser at innovasjon og kontrollsystemer er noe som kan påvirke digitalisering og bærekraft i stor grad. Når det kommer til trendene, vil de nok fortsette å påvirke i stor grad framover slik de har gjort med bedriftene vi har intervjuet i oppgaven.

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