

NHH



# What Is Stopping Norwegian Firms From Innovating Their Business Models?

*Towards A Business Model Perspective on Innovation*

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

## **Preface**

This master thesis is one of a series of papers and reports published under Theme 1, Business Model Innovation, by the Center for Service Innovation (CSI). CSI is a coordinated effort by NHH to focus on the innovation challenges facing the service sector and involves 20 business and academic partners. It aims to increase the quality, efficiency and commercial success of service innovations and to enhance the innovation capabilities of its business and academic partners. CSI is funded through a significant eight-year grant from the Research Council of Norway and has recently obtained status as a Centre for Research-based Innovation (SFI).

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A handwritten signature in black ink, appearing to read 'Krysta Alexa Singh', with a stylized flourish at the end.

Krysta Alexa Singh

## Abstract

*The purpose of this thesis is to explore the diverging concept on business model innovation and understand why Norwegian firms fail to innovate their business models. In doing so, the differences and relationship between BMI and service innovation, process innovation, and product innovation is developed into a conceptual representation of a business model perspective towards innovation.*

*Based on the survey data from 284 firms across industries in Norway and interviews from 11 interviewees, the author analyzes the barriers and challenges associated with attempting business model innovation, grouping them at an individual, firm and industry level. Ultimately, this contributes a conceptualization of a business model perspective towards innovation for managing firm activities. Moreover, this thesis finds that because service innovation, process innovation, and product innovation are located within the business model itself, business model innovation faces additional barriers.*

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# 1. Introduction

## 1.1 Background

A business model perspective allows firms to approach innovation from a systemic and holistic point of view, challenging organizations to look beyond its conventional arrays of partners, competitors, and customers (Amit & Zott, 2012, p. 7). The concept of business model innovation has been increasing in popularity among scholars and practitioners where business models have emerged as a new, and more sustainable source of competitive advantage (Markides & Charitou, 2004). Amit and Zott (2012, p.2) outline the importance of business model innovation to managers, entrepreneurs and researchers because it (1) “represents an often underutilized source of future value,” (2) can “translate into a sustainable performance advantage,” and (3) is “such a potentially powerful competitive tool, managers must be attuned to the possibility of competitors’ efforts in this area.”

However, in pursuit to reap the benefits that business model innovation has to offer, many firms are met with failure (Christensen et al., 2016). So why is business model innovation so difficult? Christensen et al. (2016; p.32) characterize BMI failure as an *intractable management problem*, highlighting the depth of its difficulty and significant gaps in literature. They add that to date, there is no “satisfactory theory for what’s causing the problem, and under what circumstances it can be overcome” (Christensen et al., 2016; p.32).

The popularity of business model innovation has also caused literature to spread “out across various fields including innovation management, strategic management, and entrepreneurship literature” (Schneider & Spieth, 2013, p.2). Therefore, not only does this divergence of literature hinder academic progression on the topic, but also makes it increasingly difficult to implement from a practitioner standpoint. Because of this gap in literature, “the new field of research focusing on business model innovation cannot build on an established definition and well-structured literature base” (Schneider & Spieth, 2013, p.2).

In a recent report that I published with Saebi (Saebi & Singh, 2015), it is clear that companies in Norway are not actually innovating their business models, with low rates of innovation activities reported across their business models, services, products, and

managerial activities. This poses the question as to why, despite acknowledging the importance and necessity for innovation, that most firms, at least in Norway, fail to do so.

## 1.2 Gap in Literature

The gaps in literature presented in section 1.1 pose significant problems for both scholars and practitioners. At least 1,177 articles have been published in peer-reviewed academic journals between 1995 and 2010 (Zott et al., 2011) that addressed this developing concept of business models. Despite researchers agreeing on business models representing a source of competitive advantage (Markides & Charitou, 2004), there is a significant lack of definitional clarity, posing significant problems for progression of research. Business model innovation has emerged as “it provides a unit of analysis capable of simultaneously considering all relevant internal and external factors” (Schneider & Spieth, 2013, p.3). However, over one third of the business model publications reviewed by Zott et al. (2011) explored the subject without even offering an explicit definition of the term.

Zott et al. (2011) discusses how this lack of definitional clarity not only impedes progression of business model innovation, but also contributes to divergence in developing literature on the concept in their literature review on the phenomenon. Shafer et al. (2005, p.200) described the business model undergoing an “identity crisis,” while Teece (2010, p.174) went as far as to say “the concept of a business model has no established theoretical grounding in economics or in business studies.” It is clear that the lack of agreement and divergence among definitions of business model innovation present a tremendous gap in literature. This is important to note because the confusion surrounding the concept, could potentially make it even more difficult to implement.

The literature review and analysis conducted for this thesis show that there lacks a clear conceptualization of business model innovation in both theory and in practice. Despite these conceptual differences among extant literature, “there is widespread acknowledgement” that business models are, “a new unit of analysis that is distinct from the product, firm, industry, or network” (Zott et al., 2011 p.2).

This is an important problem to address because well-developed definitions are fundamental to theory development (MacKenzie, 2003). However, many articles fail to explicitly define the focal concepts of the research, which undermines the validity of the study and is posing

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significant problems for academic progression. Precise definitions are vital to the development of research in regards to knowledge sharing and allowing other to comprehend and be able to criticize and reproduce findings (MacKenzie, 2003). Additionally, this lack of definitional clarity allows the concept to be confused with other types of innovation, such as service innovation, process innovation, and product innovation that involve changing the business model in some way.

There is a significant urgency for contributions of systematic and large-scale studies that allow for better understanding of the business model innovation concept (Schneider & Spieth, 2013). Few empirical studies have been done on business model innovation, and the majority of them were case-base studies and did not analyze business model innovation from a holistic perspective, let alone [on](#) a national level (e.g. Sosna et al., 2010; Svejenova et al., 2010; McGrath, 2010; Doz & Kosonen, 2010; Chesborough, 2010; Dahan et al., 2010; Wirtz et al., 2010; Thompson & MacMillan, 2010; Smith et al., 2010). Where these experiments, presented in table 1 of section 2.1.1, as much of the empirical work on the topic has been dedicated to case studies on a particular company, often with focus on a particular type of business models, by analyzing business model innovation across industries, on a large scale, this this study further contributes to a better understanding of the business model innovation landscape.

Another consequence is that little is known about the facilitators and challenges that firms face in business model innovation. Foss and Saebi (2016, p.1) question “whether a true theory of BMI exists,” and offer that literature on business model innovation does not just “face problems with respect to construct clarity [but also] has gaps with respect to the identification of antecedent conditions, contingencies, and outcomes.” Additionally due to this lack of conceptual clarity, the concept is often confused with other forms of innovation, such as service innovation, process innovation, and product innovation. Therefore, this thesis also attempts to contribute understanding to the barriers associated with innovation.

### 1.3 Research Question

The core aim of this thesis is to investigate why Norwegian firms face these low rates of innovation. Because of the significant gap in literature presented in section 1.2, it is vital to first explore and clarify the concept of business model innovation, and the barriers associated with such innovation.

While business model innovation increases in popularity among researchers, Norwegian firms fail to implement business model innovation into practice (Saebi & Singh, 2015). To explore this topic, the main question of this thesis is:

**Why do companies in Norway face low rates of business model innovation?**

Mackenzie (2003, p.325) outlines that “good definitions should (a) specify the construct’s conceptual theme, (b) in unambiguous terms, (c) in a manner that is consistent with prior research, and that (d) clearly distinguishes it from related constructs.” Definitions in business model innovation literature are not only plagued with a lack of specificity, ambiguous terms, and conflicting conceptualizations, but also that it is rarely differentiated from, or analyzed together with related constructs. As the literature in the field of innovation grows, so do the sub-constructs around innovation. This highlights the necessity to explore business model innovation to related constructs of innovation: service innovation, process innovation, and product innovation.

My intended contributions in this thesis are to: (1) explain why Norwegian companies have low rates of business model innovation, and by doing so, must first (2) provide an overview of how business model innovation relates to other types of innovation such as service, process and product innovation, and (3) identify the barriers to these types of innovations. Therefore I must first clarify what business model innovation is and differentiate the different concepts of innovation, posing the additional questions:

**What is business model innovation, and how does it relate to service innovation, process innovation and product innovation? What are the barriers to these types of innovation, and do they have any impact on each other?**

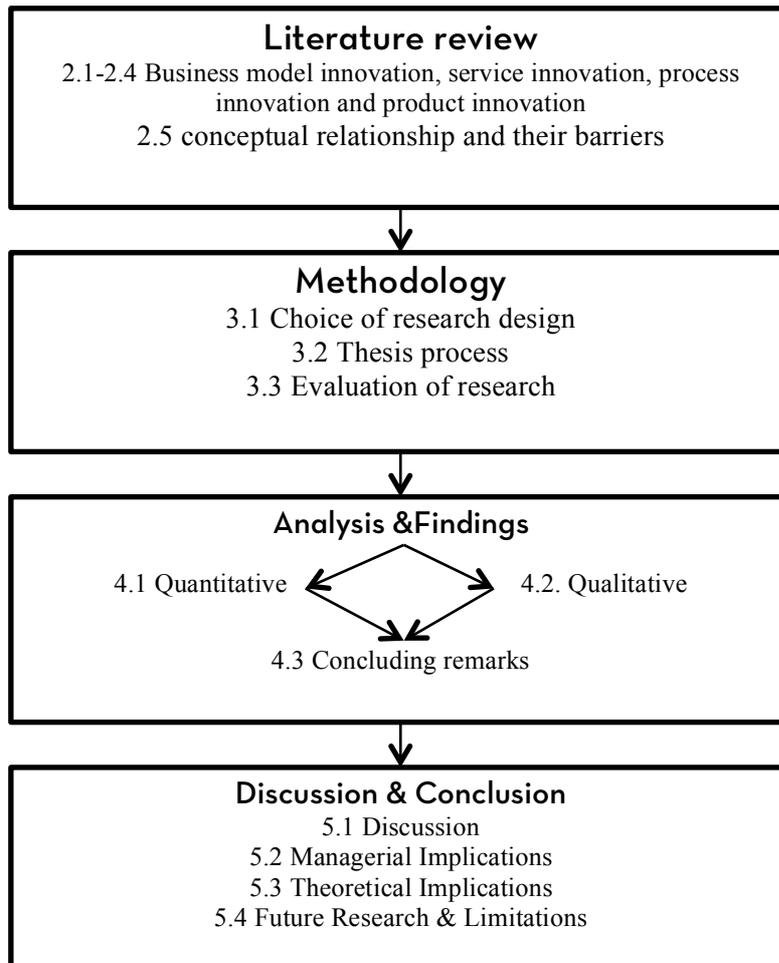
## **1.4 Overview of Thesis Structure**

The thesis is structured as outlined in figure 1. As there is a significant gap in literature, I will begin by a literature review that reviews the concepts of business model innovation, service innovation, process innovation and product innovation, and discussing the barriers associated to each type of innovation, and their relationship to each other. This is important as both the terms business model innovation and service innovation have yet to have an agreed upon definition. In addition, previous literature on these subjects have not analyzed the relationships between these various types of innovation, but look at them as independent

topics, or only two topics at a time. Here, I will propose a holistic model of innovation from a business model perspective.

Next, the methodology section explains how the research has been carried out, utilizing both quantitative and qualitative methods to answer the research question. The analysis section of this thesis will start with an empirical survey from secondary data to analyze firm activities in business model innovation in Norway. This method will gain more holistic insight of the state of innovation activities among firms across various industries in Norway. As most previous empirical studies have been case-based, a cross-sectional questionnaire will provide more insight into firm activities related to innovation overall, contributing a national perspective on innovation. The findings will then be supplemented through primary qualitative data in the form of semi-structured interviews. The interviews will gain additional perspectives from eleven experts and managers from Bekk Consulting, Innovation Norway, Posten, Telenor, and Virke to gain further insight into understanding the innovation landscape in Norway.

Finally, the discussion and conclusion section of this thesis will discuss how the quantitative and qualitative findings relate to each other and previous literature. It will outline what implications the findings pose for practitioners, future research, and the limitations of this research.



*Figure 1: Outline of thesis*

## 1.5 Boundaries of this thesis

This thesis is limited to firms operating in Norway. The companies included in this research span various industries, and have numerous characteristics. As initial results show that Norwegian firms have low rates of business model innovation (Saebi & Singh, 2015), this thesis primarily explored challenges related to business model innovation, and the mindset associated with business model innovation as opposed to its impact on firms. The understanding follows prior research, but hopes to converge, and build upon previous ideas to introduce a more holistic approach to innovation from a business model perspective.

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## 2. Literature Review

In order to understand why business model innovation is low in Norway, it is essential to first clarify the concept of business models and business model innovation. To date, there is significant confusion among scholars on what business model innovation is, and how it compares to other forms of innovation, such as service, process and product innovation. Therefore, through this literature review, I will first aim to clarify what a business model and business model innovation is, and analyze similarities and differences to service innovation, process innovation and product innovation, in order to establish an understanding of how these relate. Then I will propose a conceptualization of the relationship between these types of innovation through a business model perspective. As we analyze the factors contributing to low rates of innovation, the barriers to innovation must also be discussed. Barriers of each type of innovation will be outlined and compared to each other to gain further insight into why these activities can be challenging for [some](#) Norwegian firms.

### 2.1 Business Model Innovation

Between 1995 and 2010, there have been over 1,177 articles published in peer-reviewed academic journals that address the notion of a business model (Zott et al., 2011). Despite the increasing academic interest and attention in the term, there is still no commonly accepted definition and understanding of what business models are (Santos, Spector & Vandehaden, 2009; Zott et al., 2011; Schneider & Spieth, 2013; Saebi & Foss, 2015). Even in 2005, Shafer et al. (p. 200) describe the term as “desperately seeking definition,” articulating the urgency of the term’s clarification so that academic progress can be made in the term’s development. This conceptual representation hinders progression and development of the term *business models* while presenting a potential source of confusion over its actual definition and meaning. As the term continues to grow in popularity, Zott et al. (2011 p.2) point out that this “lack of definitional clarity promotes dispersion rather convergence of the perspectives, hindering cumulative research progress on business models” and thus, business model innovation. While many researchers acknowledge the obstacles in the lack of definitional clarity, this poses significant problems for practitioners alike, where “none of these definitions, however, have been accepted fully by the business community” (Shafer et al., 2005, p.200).

Zott et al. (2011) also point out that scholars tend to adopt idiosyncratic definitions in silos according to their own research interests. Though this may enhance the particular study's contributions, it ultimately diverges continuing research on the subject, and fuels confusion, as the definitions are "too difficult to reconcile with each other" (Zott et al., 2011, p2). Foss and Saebi (2016) add that these silos are relatively isolated and "do not seem to build off one another," (Foss & Saebi, 2016, p.9). Zott et al.'s (2011) literature review of business model innovation is a great example of the extent of variances in business model definitions, where they deduct that not only are there differences in the definitions of business models, but also *how* they are defined without explicitly defining the concept:

*"At a general level, the business model has been referred to as a statement (Stewart & Zhao, 2000), a description (Applegate, 2000; Weill & Vitale, 2001), a representation (Morris, Schindehutte, & Allen, 2005; Shafer, Smith, & Linder, 2005), an architecture (Dubosson-Torbay, Osterwalder, & Pigneur, 2002; Timmers, 1998), a conceptual tool or model (George & Bock, 2009; Osterwalder, 2004; Osterwalder, Pigneur, & Tucci, 2005), a structural template (Amit & Zott, 2001), a method (Afuah & Tucci, 2001), a framework (Afuah, 2004), a pattern (Brousseau & Penard, 2006), and a set (Seelos & Mair, 2007)" (Zott et al., 2011, p. 4).*

**One** of the earliest investigations of business models, defined the term as, "an architecture for the product, service and information flows, including a description of the various business actors and their roles; a description of the potential benefits for the various business actors; and a description of the sources of revenues" (Timmers, 1998, p. 2). Among the more frequently cited definitions, **the** business model has been defined as "[depicting] the content, structure, and governance of transactions designed so as to create value through the exploitation of business opportunities" (Amit & Zott, 2001, p. 1); "the story of how the company works" (Magretta, 2002, p. 4); "the organizational architecture for value creation, value delivery and value capture (Teece, 2010, p. 172); and "the rationale of how an organization creates, delivers and captures value" (Osterwalder & Pigneur, 2010, p. 14); "the logic of the firm, the way it operates and how it creates value for its stakeholders" (Casadesus & Ricart, 2010, p. 196). All are representative of the nature of conceptualization of the definition, presenting little specificity in the terminology.

### ***Components of Business Models***

As we conceptualize business model innovation as the overarching theoretical framework to innovation, exploring the components of business models is vital to show the relationship between different concepts within innovation. Where the definitions of business models vary

in extant literature, the components that make up business models differ across literature as well. Many researchers choose to explicitly outline the various components they use to define business models, while others pose fundamental questions that the business model should answer, and let the specific components be implied through those. Most notably, Osterwalder and Pigneur's (2010) 'business model framework' divides the business model into a "canvas" with nine components explicitly outlined: customer segments, value propositions, channels, customer relationship, revenue streams, key resources, key activities, key partnerships and cost structure. Some researchers simplify the business model in four components, such as strategic choices, value network, create value, and capture value (Shafer et al., 2005, p.2), or customer value proposition, profit formula, key resources, and key processes (Christensen et al., 2016, p.33; Johnson et al., 2008).

Chesbrough and Rosenbloom (2002, p.533) define the business model as a set of functions to "articulate the value proposition," "identify a market segment," "define the structure of the value chain," "estimate the cost structure and profit potential," "describe the position of the firm within the value network," "and formulate the competitive strategy." Casadesus-Masanell and Ricart (2010, p.201) follows a similar approach, where good business model design involves determining: "which market segments should be targeted; what benefits the product/service will deliver to the customer; which features/technologies will be embedded within it and how they can be best assembled and offered to the customer; how the business's revenue and cost structures should be designed and how value will be captured and competitive advantage sustained."

Amit and Zott (2012, p. 5) break the definition model into several core questions rather than components: "Who is the target customer? What need is met for the customer? What offering will we provide to address that need? How does the customer gain access to that offering? What role will our business play in providing the offering? How will our business earn a profit?" Similarly, Margretta (2002, p.4) asks, "Who is the customer? And what does the customer value?" while also sparking fundamental questions such as, "How do we make money in this business? What is the underlying economic logic that explain how we can deliver value to customers at an appropriate cost?" Timmers (1998, p.2) called for a marketing strategy in order to "assess the commercial viability and to answer questions like: how is competitive advantage being built, what is the positioning, what is the marketing mix, which product-market strategy is followed."

Alternatively, Casadesus-Masanell and Ricart (2001, p.201) “do not consider any a priori categories or variables, and thus define business models independently of any features of goodness and/or effectiveness.”

Based on these varying definitions, for the purpose of this paper, I will segment business models into architecture with four parts: (1) target segment, (2) value proposition, (3) value capture, and (4) value delivery. These four components cover the various different segments in business models proposed by previous literature, as depicted in table 1, while grouping them in more concise terms, making it easier to spot innovations in these areas (Saebi & Singh, 2015). Where some researchers also include the firm’s environment, this will be considered outside of the business model. This is important to clarify as we use business model perspective as a framework for examining innovation. Therefore, I have complied various components mentioned in select literature and grouped them into more concise terms, in order to clarify overlapping concepts in relation to my proposed definition.

**Table 1: Selected Components of Business Models;** Source: author's own research

Author	Value Proposition	Value Delivery	Value Capture	Target Market
Osterwalder and Pigneur (2009)	Value Proposition	Key resources, key activities, channels, key partnerships	Revenue Streams, Cost Structure	Customer segments, customer relationship
Amit and Zott (2012)	What need is met for the customer? What offering will we provide to address that need?	How does the customer gain access to that offering? What role will our business play in providing the offering?	How will our business earn a profit?	Who is the target customer?
Margretta (2002, p4)	And what does the customer value?	How we can deliver value to customers?	How do we make money in this business? What is the underlying economic logic that explain how we can deliver value to customers at an appropriate cost?	Who is the customer?
Shafer et al (2001)	Value Proposition, Output (offering), branding, differentiation, mission	Create Value (Resources/ Assets, Processes/ Activities); Suppliers, , Information Flows, Product/ Service Flows	Capture Value (Cost, Financial Aspects, Profit); Revenue pricing	Customer (Target market, Scope), Customer Information, Customer relationship
Johnson et al. (2008)	Job customer wants done; Offering	Key resources (people, technology, equipment, information, channels, partnerships, alliances, brand), key processes (processes, rules and metrics, norms)	Profit Formula (Revenue model, cost structure, margin model, resource velocity)	
Chesbrough & Rosenbloom, 2002	Value Proposition	Value Chain	Cost Structure and Profit	Market Segment

### ***Business Model Innovation Defined***

Though practitioners and researchers identify business model innovation as a new important source of competitive advantage (Chesbrough, 2010; Teece, 2010; Zott and Amit, 2007), similar to the term business model, no precise definition of *business model innovation* has yet emerged (Schneider & Spieth, 2013). This lack of consensus regarding the definition of business models makes it increasingly difficult in conceptualizing business model innovation, as there are also variances in the way *innovation* is defined as well, “with regard to what it is that constitutes such innovation, such as in terms of novelty or radicalness or the

role business model innovation plays in enhancing a firm's performance." (Foss & Saebi, 2015; p.7).

At a conceptual level, business model innovation has been defined as "the discovery of a fundamentally different business model in an existing business," (Markides, 2006, p.20), or as the process of, "designing a new, or modifying the firm's extant activity system" (Amit & Zott, 2010, p.2). It thereby aims at actively renewing a firm's core business logic rather than limiting its scope of innovation to products and/ or services. It also builds on the business model's capacity to integrate all of the firm's current business model components, external environment, and interfaces with customers and partners (Amit & Zott, 2010). Amit and Zott (2012; p.5) continue to define business model innovation as consisting of "adding new activities, linking activities in novel ways, or changing which party performs an activity."

Amit and Zott's (2010) definition will be the one adopted for the purpose of this thesis, where I define business model innovation as changing the business model in ways that are both new to the firm, and new to the industry. Combined with my adopted definition of business models, firms can innovate their business models by (a) targeting new customer segments (b) offering new value propositions (new bundle of services and products), (c) capturing value in a novel way (novel pricing mechanisms or new main source of revenue) and/or (d) finding new ways of producing, delivering or distributing existing or new products and services to existing or new customer segments (Foss & Saebi, 2015). However, not all business model innovation activities are considered innovative. Some companies adapt their business models by introducing changes that are new to the firm but known to the industry. This is often the case where companies follow the example of innovative business models in their industry. However, if managers introduce changes to the business model that are both new to the firm, as well as, new to the industry, then this constitutes business model innovation (Saebi, 2015). Therefore, changes to the business model that are new to the firm, but known to the industry will be considered adaptations as opposed to innovations (Saebi & Singh, 2015).

**Table 2. Examples of Business Model Experimentation;**

Source: Baden-Fuller &amp; Morgan, 2010, p.165

<i>Author</i>	<i>Company examples</i>	<i>Kinds of experimentation</i>
Sosna, Trevinyo-Rodriguez & Velamuri (2010)	Naturhouse	Deliberate real experiments by managers with new business model to change business
Svejenova, Planellas & Vives (2010)	Ferran Adria` & elBulli restaurant	Deliberate real experiments by the entrepreneur to create new businesses models
McGrath (2010)	Freemium models, Google	Deliberate real experiments by managers to embed business models into the firm
Doz & Kosonen (2010)	Mental models of managers	Thought experiments by managers to create new business models for existing businesses
Chesborough (2010)	3Com, Radiohead	Experiments by managers that were partly planned and partly not, partly schema and partly real firm based
Dahan, Doh, Oetzel & Yaziji (2010)	Corporate/NGO Collaborations	Experiments by managers on different NGO collaborations to develop social business models
Wirtz, Schilke & Ullrich (2010)	Web 2.0 BMs: Wikipedia, MySpace	Thought experiments by academics linking Web 2.0 phenomena to changes in internet firms' business models
Thompson & MacMillan (2010)	New businesses for social wealth creation	Thought experiments by academics and real project experiments to create business models for new & societal wealth markets
Smith, Binns & Tushman (2010)	USA Today, analogue devices	Experiments by managers and academics in balancing exploitation and exploration

### 2.1.2 Barriers to business model innovation

According to previous literature, the main barriers to business model innovation given in previous literature focus on:

- Conflicts with prevailing business model or assets
- Not knowing what the business model is or should be
- Organization
- Leadership
- Capabilities
- Culture

#### *Conflicts with prevailing business model or assets*

Many challenges in business model innovation are due to the nature of business models in itself. Christensen (1997), and Amit and Zott (2001; p359), find that development is resisted

due to conflicts with the prevailing business model, or with the underlying configuration of assets under the current model.” Zott & Amit (2011; p.19) articulate that “the business model perspective thus involves simultaneous consideration of the content and process of ‘doing business,’ which makes the defining and operationalizing of the construct challenging.” In regards to implementation, Doz and Kosonen (2010; p.370) point out that the stability within a business model structure limits the firm’s strategic agility because the firm “falls victim to the rigidity of their business model.” Thus, transforming said business model becomes difficult as inertia from many sources within the organization will defend the status quo (Doz & Kosonen, 2010), and thus, business models can be barriers within themselves. This notion is also found in Teece (2010, p.187), “changing the firm’s business model literally involves changing the paradigm by which it goes to market, and inertia is likely to be considerable.” and more recently Christensen et al. (2016; p.33) where “business models by their very nature are designed not to change, and they become less flexible and more resistant to change as they develop over time.”

### ***Not knowing what the business model is, or should be***

Amit and Zott (2001), and Christensen (1997), have found that managers recognize the right business model for their firm, but face barriers in innovating because of conflicts with their current business model or underlying assets of that business model. Chesbrough (2010) found more significant challengers, where managers failed to recognize what the correct business model should be for their firm in the first place, significantly hindering any efforts towards business model innovation. Teece (2010, p.187) found similar discoveries, where, “the right business model may not be apparent up front, and learning and adjustments will be necessary.”

### ***Organization & Capabilities***

Another significant barrier is the organizational need to continue execution of their current business model while also undertaking the exploration and development of new ones (Chesbrough, 2010; Doz & Kosonen, 2010; Tushman and O’Reilly, 1996). Chesbrough (2010; p.361) strengthens this argument by finding “the search for a new business model [may mean] extended co-existence between current and new models” indicating the potential, and perhaps necessity, for firms to explore innovation along side their prevailing business model while simultaneously continuing activities in their current model. In addition to the challenges associated with change, Doz and Kosonen (2010) stress that firms need to

have strategic agility in order to transform their business models in order to achieve strategic innovation.

Doz and Kosenen (2010; p.375) state that, “abstracting one’s business model to its conceptual essence without losing sight of its contextual dependency [can be a valuable] contribution to strategic agility and business model renewal.” This can indicate while formalizing the definition of business model innovation is significant for pushing academic research on the subject forward, business models have more benefits remaining conceptual, flexible concepts from the practitioner perspective. Chesbrough (2010) also discusses how experimentation must sometimes be conducted outside the company’s business model in order to succeed, particularly when the future outcome of the new business model will be.

### ***Leadership & Capabilities***

Chesbrough (2010; p362) stresses the need to identify leaders, who “must adopt, explicitly, an experimental stance toward business model innovation.” Leadership is also stressed in Doz and Kosenen (2010, p.376) where “accelerating business model change and renewal [requires] a top team willing to venture into new models and (more difficult) abandon new ones,” emphasizing the need for strategic agility and the development of leadership meta-skills. Chesbrough (2010) highlights potential conflicts that can arise between different silos in the organization, as business model experimentation requires testing aspects of and interactions between departments. To overcome this obstacle that middle managers face, it may seem beneficial to have the CEO lead the change, which, while they have authority over the organization as a whole, they likely rose to their position through the current business model, which may make them overly comfortable with the prevailing model, and in turn, actually impede the innovation process (Chesbrough, 2010).

### ***Culture***

Chesbrough (2010, p.362) stresses that “The organization’s culture must find ways to embrace the new model, while maintaining the effectiveness of the current business model until the new one is ready to take cover completely.” Where companies need more than experimentation to drive successful business model innovation (Chesbrough 2010), they must balance current activities with activities directed towards innovation. Additionally, Chesbrough (2010) stresses that a strong organizational culture is required to navigate the significant challenges that business model innovation poses, and local objectives must align to allow for the greater priorities of the company.

### ***Gaps to address***

Previous literature on business model innovation presents a variety of associated barriers, but contingency and moderating variables was identified as a gap in current literature (Foss, Saebi, 2016). Additionally, Zott et al. (2010) highlights that issues relating to the specific components of business models have been relatively neglected in previous research. Through the analysis section I hope to identify any additional barriers to business model innovation, and more in-depth insight into firm activities on a component level.

## **2.2 Service Innovation**

Service innovation may not be a new concept (Miles, 1993), but there is still significant divergence about the definition of the term that poses subsequent problems (Witell et al., 2016). Service innovation still needs further conceptual and empirical studies, as the *concept remains relatively unexplored* (Carlborg et al., 2014, p.347; Ostrom et al., 2010; Page & Schirr, 2008). Gallouj and Windrum (2009), point out an *urgent need for the systematic review* of the existing knowledge base on this rapidly diversifying concept. Carlborg et al. (2014 p.347) finds that “no comprehensive reviews describe the evolution of service innovation research in relation to the fields of marketing and innovation” over the past three decades. Similar to the gap in literature on business model innovation, this divergence among service innovation literature poses significant problems for conceptualization (MacKenzie, 2003).

A prime example of this ambiguity is Kindström et al.’s (2013, p.1064) outline of service innovation “as a broad concept that encompasses a considerable number of distinct dimensions,” citing literature from Bessant and Davies (2007), de Jong and Vermeulen (2003), Edvardsson and Olsson (1996), and Tidd, Bessant, and Pavitt (2001). Barcet (2010, p. 51) more specifically, but still ambiguously, states service innovation “introduces something new into the way of life, organization, timing and placement of what can generally be described as the individual and collective processes that relate to consumers.” Ostrom et al. (2010, p.2) outline that “service innovation creates value for customers, employees, business owners, alliance partners, and communities through new and/or improved service offerings, service processes, and service business models.”

I will be using Toivonen and Tuominen’s (2009, p.893) more specific definition of service innovation, adopted from Sundbo (1997), as “a new service or such a renewal of an existing

service which is put into practice and which provides benefit to the organization that has developed it; the benefit usually derives from the added value that the renewal provides the customers.” Additionally, they emphasize “to be an innovation the renewal must be new not only to its developer, but in a broader context” (Toivonen & Tuominen, 2009, p. 893), ultimately supporting our definition of innovation beyond newness to the firm, but also to the market (Saebi, 2015).

In addition to the lack of common definition of service innovation, it is important to highlight differences among similarly used terms surrounding service innovation. The distinction between the terms service innovation and *new service development* remains relatively undefined, but it is clear that achieving service innovation requires more than just the continual development of new services (Kindström & Kowalkoski, 2014). There is also a notable distinction between *service innovation*, *service design*, and *service dominant logic*, which is occasionally referred to in tandem with service innovation. *Service design* has been defined as narrow as “the concretization of the service concept in drawings, flowcharts” (Goldstein et al., 2002, p.122), or as general as referring to the entire process of new services creation from idea to specification (Martin & Horne, 1993), for which I will adopt the latter as it is more practical. *Service dominant logic* is more clearly defined as a view “in which intangibility, exchange processes, and relationships are central” (Vargo & Lusch, 2004, p.2), shifting focus away from the producer to consumer. Service dominant logic puts emphasis on “intangible resources, the co-creation of value, and relationships” (Vargo & Lusch, 2004, p.1). Therefore, we can differentiate these terms where service design is construction of service innovation and service dominant logic is the thought process behind service innovation.

Kindström et al. (2013, p.1073) stresses a comprehensive conception of service innovation is vital as it is a “multi-dimensional, organization-wide challenge to the managers charged with its design and implementation.” I intend to contribute a deeper conceptualization of the term by conceptualizing it from a business model perspective, adding its relationship to components of the business model, and how its barriers may impact innovating the business model.

### **2.2.1 Barriers to service innovation**

According to previous literature, the main barriers to service model innovation given in previous literature focus on:

- Organization
- Leadership
- Capabilities
- Culture

Service innovation often requires a significant shift in strategy, transforming the organizational structure, and acquiring new skills (Kindström et al., 2013; Gebauer et al., 2011; Jacob & Ulaga, 2008; Kowalkowski et al., 2012; Brashear et al., 2012; Raddats & Easingwood, 2010). Firms must cultivate dynamic capabilities in order to both “develop new services continuously and comprehend the underlying business logic of service provisions” (Kindström et al., 2013, p.1063). Ordanini and Parasuraman (2010, p.17) also stress the need for dynamic capability in terms of a “continuous focus on both customer and innovative orientations.” Berry et al. (2006) outlines the necessity for strong leadership and a supporting organizational culture that fosters risk taking and idea sharing of employees, while caring enough to attempt new things. Ordanini and Parasuraman (2010, p.16) also emphasize that managers should look both outside and inside the organization for sources of service innovation, and encourage external collaboration with business partners and customers, as well as internally, with employees.

## **2.3 Process innovation**

Contrary to the widespread discrepancies across the definitions of business model innovation and service innovation, the term process innovation has been clearly established and accepted into extant literature. A process is defined as a predefined, structured measured set of activities designed to produce a specific output for a particular customer or market (Becker, Kugeler, and Rosemann 2003; Davenport, 1993). This includes a specific ordering of work activities, often referred to in the value chain, consisting of clear identified inputs and outputs, ultimately emphasizing *how* work is done within an organization (Davenport, 1993). Process Innovation is, therefore, defined as performing an activity in a radically new

way, which often utilizes specific change tools and transformation of business processes (Davenport 1993).

### **2.3.1 Barriers to process innovation**

According to previous literature, the key barriers to process innovation are as follows:

- Technology
- Resources
- Capabilities

As the purpose of process innovation is predominantly to lower the firm's average cost of production, most literature on barriers emphasized the need for organization efficiency, and technology in the process Klepper (1996).

## **2.4 Product Innovation**

Product innovation was outlined as early as 1975, where Utterback and Abernathy (p.642) define product innovation as, “a new technology or combination of technologies introduced commercially to meet a user or a market need.” Product innovativeness, sometimes called product newness, refers to the extent to which a product is new to customers, the industry, and the focal firm (Olson, et al. 1995). Chandy and Tellis (1998) identify four types of product innovations: incremental innovations, market breakthroughs, technological breakthroughs, and radical innovations. Alternatively, Olson et al. (1995, p. 52) find “true innovations are those that are entirely new to both the firm and the marketplace and are described as new-to-the-world products,” which is inline with our own definition regarding innovation as being both new to the firm and new to the industry, and will therefore continue to use this in the definition of product innovation.

### **2.4.1 Barriers to product innovation**

According to previous literature, the key barriers to product innovation are as follows:

- Rigidity
- Technology
- Resources
- Capabilities

- Organization

Similar to process innovation, as product innovation has been well established, previous literature has mostly focused on technology, resources, as barriers to its success, stressing the importance of efficiency in the organization (Utterback & Abernathy, 1975). Grönlund et al. (2010) add that product innovation also requires continuous adaptation and adjustment of organizational capabilities, highlighting potential core rigidities and the organization as potential barriers.

## **2.5 Towards a Business Model Perspective on Innovation**

Business model innovation, service innovation, process and product innovation have mostly been covered in previous literature as separate concepts. In addition to the lack of agreement of definitions for business model innovation and service innovation, exploration of the relationship between innovation concepts remains a tremendous gap in research. Previous literature discussing potential relationships between these concepts has been limited to looking at two concepts at a time. This was predominantly in regards to the relationship between product and process innovation (e.g. Utterback & Abernathy, 1975; Adner & Levinthal, 2000). More recently, scholars have begun linking service and process innovation together, and business model innovation and service innovation (Kindström & Kowalkowski, 2014). However, much more exploration into the relationship between innovation concepts in a holistic sense is needed in academia.

A central intention and contribution of this literature review is to fill this gap, and offer a potential model for conceptualizing innovation activities holistically. In this section, I will propose a business model perspective towards innovation, in which the business model serves as the architecture encompassing service innovation, process innovation, and product innovation activities. Through a business model perspective, all aspects of innovation activities from these separate concepts are conveyed together in one inclusive framework of the business model, where innovation concepts are overlapping aspects within the business model itself.

### **2.5.1 Conceptual Relationship**

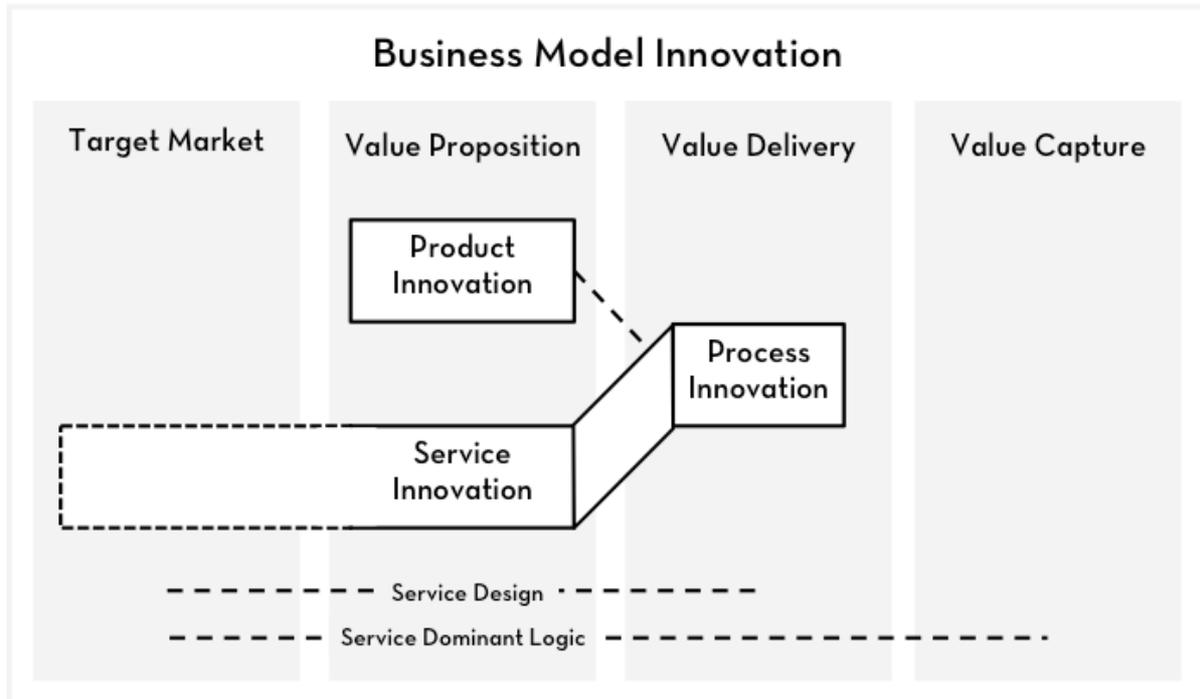
Though there is a lack of agreement regarding the definition of business model and service innovation, some links between the various concepts of innovation have been presented in

previous literature that allows us to begin to discuss the relationship between different types of innovation concepts and their relationship to each other. I propose that business models have not only emerged as a way to organize not only the way companies do business, but also organize the other types of innovation activities – service, process, and product innovation – as well. A business model perspective can then lay the foundation of discussion of the various types of innovation within a firm as components within the business model itself.

MacKenzie (2003, p. 323) states that despite most literature having lengthy comprehensive sections “reviewing the diverse, and often conflicting, conceptualizations of the focal construct(s) found in the research literature,” most authors abandon their responsibility to synthesize alternative conceptualizations. Through the business model innovation perspective, I aim to conceptualize the relationship between the various types of innovation and which components in the business model they impact. This will be done so using our proposed definition of business model as containing four components, (1) target market, (2) value proposition, (3) value delivery and (4) value capture as the foundation for this perspective. This allows conceptualization of the relationships between business model innovation and the concepts of service, process, and product innovation by grouping them with the components they influence.

**Figure 2: A Business Model Perspective Towards Innovation**

Source: Author's own research



### ***Product innovation within the business model***

The relationship product and service innovation has to the value proposition component is fairly clear. Timmers' (1998 p.2) definition of business model as, "an architecture for the product, service and information flows, including a description of the various business actors and their roles; a description of the potential benefits for the various business actors; and a description of the sources of revenues", articulating that both products and services are actually components within business models themselves. Process innovation is very established in previous literature, relatively limited to processes themselves, and are thus fairly contained within the bounds of value delivery.

### ***Process innovation within the business model***

Previous literature often link product and process innovation together, as process innovation is often necessary to achieve product innovation so the concepts remain differentiated but closely linked (e.g Utterback & Abernathy, 1975; Adner & Levinthal, 2001). Robertson et al. (2012) highlights the inappropriateness in considering product innovation in isolation as, it is reliant on process changes that utilize new techniques, which will only lead to additional process development if products become successful.

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### ***Service innovation within the business model***

Davenport (1993) finds that distinguishing between service innovation and the innovative processes that enable such innovation is nearly impossible, indicating that though there is a differentiation among service and process innovation, there are blurred lines between their relationship. Witell et al. (2016) elaborate on this discussion, where the term service innovation lacks clarity in whether it refers to a successful process or outcome. De Jong and Vermeulen (2003) state that service innovation involves more than just the development of new services, but also involves innovations within the delivery processes, customer interfaces, and the buyer-seller relationship, linking Service innovation, not only to process innovation, but emphasizing its involvement in the value delivery and target market components as well. Moreover, customer orientation is a key focus within service innovation, where service innovation is differentiated from product innovation, in part, due to its heavy focus on the customer experience (Berry et al., 2006; Gallouj and Weinstein, 1997; Michel, Brown and Gallan, 2008; Dubosson-Torbay et al., 2001). Kindström and Kowalkowski (2014, p.106) also discuss how service innovation over time can be reflected in the extent of changes in the business model elements, where “A radical change likely includes all elements of the business model,” ultimately supporting its conceptualization of within the business model. This conceptualization can also be expanded to include service design and service dominant logic to offer further clarity to these concepts, where service design and service dominant logic cover more aspects of components within the business model.

Through this perspective, I aim to contribute a better conceptualization of business model innovation. While this may help clarify the concept in academia, it may allow for better understanding of the barriers associated with business model innovation, and present more opportunities to overcome them.

### **2.5.2 Discussion of Barriers**

If business model innovation is truly the architecture for conceptualizing firm activities, then all firm activities, including service innovation, process innovation, and product innovation will be revealed within the business model itself. Therefore, the same challenges associated within these proposed subtypes of innovation, service innovation, process innovation and product innovation, should reveal themselves business model overall. For example, Kindström and Kowalkowski (2014, p.106) identify too much emphasis on service

innovation without clarifications regarding innovations in different business model elements, ultimately inhibiting innovation. There may also be additional barriers distinct to business model innovation that other types of innovation do not face. For example, not knowing one's business model could be distinct to business model innovation challenges.

Previous literature has indeed identified various barriers to business model, service, product, and process innovation, but it is often explored independently. In table 3, I identify key barriers mentioned in literature across the different types of innovation. Through this, similarities and differences arise. However, though there are differences between the barriers that emerge from service, process, and product innovation, all of the barriers mentioned in these areas are also presented in business model innovation as well.

***Proposition: BMI faces more challenges because of barriers from service innovation, process innovation, and product innovation within the business model.***

Therefore, from a business model innovation perspective, business model innovation should face all the same, and potentially additional, barriers associated with service innovation, process innovation and product innovation.

**Table 3: Key Barriers;** Source: author's own research

<b>Barriers</b>	<b>Business Model Innovation</b>	<b>Service Innovation</b>	<b>Process Innovation</b>	<b>Product Innovation</b>
<i>Conflicts with prevailing business model or assets</i>	Chesbrough (2010); Amit & Zott (2001); Christensen (1997)			Klepper (1996)
<i>Not knowing what the business model is or should be</i>	Chesbrough (2010); Chesbrough & Rosenbloom (2002)			
<i>Cognitive</i>	Chesbrough & Rosenbloom (2002)			
<i>Organization</i>	Chesbrough (2010); Doz & Kosenen (2010); Tushman & O'Reilly (1996)	Gebauer et al., (2011); Jacob & Ulaga (2008); Kowalkowski, et al., (2012); Raddats & Easingwood, 2010).		
<i>Capabilities</i>	Chesbrough (2010); Doz & Kosenen (2010); Teece (2007)	Teece (2007); Kinström et al. (2014); Den Hertog et al. (2010); Fischer et al. (2010); Martin & Horne (1992).	Brenner & Tushman (2003); Teece (2007); Utterback & Abernathy (1975)	Teece (2007); Utterback & Abernathy (1975); Grönlund et al. (2010)
<i>Leadership</i>	Chesbrough (2010); Doz & Kosenen (2010)	Gebauer, et al. (2011); Jacob & Ulaga (2008); Kowalkowski et al. (2012); Raddats & Easingwood (2010).		
<i>Culture</i>	Chesbrough (2010); Doz & Kosenen (2010)	(Berry, 2006)		
<i>Resources</i>	Christensen (1997; 2003), Amit & Zott (2001)		Utterback & Abernathy (1975)	Utterback & Abernathy (1975)
<i>Technology</i>	Christensen (1997)		Klepper (1996) Adner & Levinthal (2000); Utterback & Abernathy (1975)	Klepper (1996) Adner & Levinthal (2000); Utterback & Abernathy (1975)

### **3. Methodology**

In this section, I will explain the purpose of, and reasoning behind, the mixed-methods approach, deductive and exploratory methodology design behind this thesis. The survey analysis showed overall low rates of business model innovation activities in Norway. Though this contributed new findings as to the activities firms are engaging in, limited statistical insight was found as to why this was the case. I therefore chose to supplement the quantitative survey data with qualitative interviews to further build on the secondary data to understand the underlying reasons behind these results. I will explain the core components of the thesis: literature review and conceptualization, secondary survey data analysis, and supplementary qualitative interviews. Then, I will evaluate the quality of this research design.

#### **3.1 Choice of Research Design**

The purpose of this thesis is to first understand why Norwegian firms fail to innovate their business models. In doing so, it is vital to then explore the concepts of business model innovation, service innovation, process innovation, and product innovation. Therefore, to conduct this study, I followed a multistep process using an exploratory approach. With extant conceptual research, a deductive approach provides a time-efficient and highly structured way to analyze business model innovation (Saunders et al., 2009). As empirical research on the topic is still limited, (Baden-Fuller & Morgan, 2010) an exploratory approach of this paper is justified (Saunders et al., 2009).

#### **3.2 Thesis Process**

Not only is a critical literature review necessary to “develop a thorough understanding of, and insight into, previous research that relates to your research question(s) and objectives” (Saunders et al, 2009, p. 98), but given the variances and divergence in previous literature on business model innovation, it is vital to clarify the concepts and definitions involved before exploring the topic further. MacKenzie (2003, p.324) stresses, “Without well-developed construct definitions, it is impossible to develop a coherent theory because constructs are the building blocks of theory.”

As I delved deeper into literature on business model innovation, I found that there were many connections to other types of innovation, mainly service innovation, process innovation and product innovation, which did not seem to be explored. Therefore, in order to develop a clear conceptualization of BMI and its challenges, the first section of my thesis has been critical review of the literature on business model innovation, service innovation, process innovation and product innovation where I explored the concepts, their barriers, and their relationship to each other.

In order to then satisfy the research question for why business model innovation is low in Norway, a mixed-methods approach was employed utilizing both “quantitative and qualitative data collection techniques and analysis procedures” (Saunders et al., 2009, p.152). I chose the mixed methods approach as it has particular advantages for the exploratory approach of this thesis, as it allows for triangulation to corroborate research findings; are complementarity where the qualitative section can address any gaps within the quantitative section; aids interpretation of the quantitative data through qualitative findings, and allows for generality in which the qualitative data assists in the contextualization of the main study, and can emphasize the level of importance of results (Saunders et al., 2009, p.154). I chose to start the analysis with survey data, discussed further in 3.2.1 and analyzed in section 4.1, to identify the activities towards innovation firms are participating in. With low rates of innovation across firms in Norway, the interview results, discussed in section 3.2.1, and analyzed in section 4.2, helps contribute understanding of the rational behind these low rates of innovation activities while adding further context to the study.

These analyses are then discussed in tandem in section 4.3, drawing relevant implications that the mixed-methods approach yields for business model innovation. In the last chapter, these results are then tied back to previous literature in section 5.1, and managerial implications are elaborated on in section 5.2. The thesis then proceeds to discuss theoretical implications and future research and limitations in sections 5.3 and 5.4 respectively.

### **3.2.1 Quantitative Data collection and strategy**

As discussed in chapter 2, business model innovation involves many components, and faces many barriers. Much of the prior literature is case-based and qualitative, which though these studies may offer deep insight into a particular firm or industry, it limits the scope of the findings to a particular firm or industry. In order to find out why Norwegian firms face low

rates of business model innovation, it is important to investigate firm activities in respect to business model innovation from a larger perspective. Thus, a nation-wide survey was the best approach, and allowed the collection of data across numerous firms in a variety of industries.

As currently available empirical research on the topic is limited, I chose to build on survey-based secondary data, because it significantly lowered the time and cost of performing a primary survey of this scope myself. The survey was created by the Center for Service Innovation at the Norwegian School of Economics, and was conducted through TNS Gallup in Fall 2014. This cross-sectional questionnaire sets a strong foundation for the exploration in the thesis, as it is claimed to be one of the strongest methodical tools in quantitative research through collecting a rich variety of quantitative evidence, generating representative findings, and retaining good control over the process through close-ended questions (Saunders et al, 2009). The survey was ad hoc in nature, but was aimed to be the first of a continuous survey on business model innovation being developed.

### ***Cross-sectional questionnaire***

The survey was divided into several contextual subsections with associate close-ended questions in order to prevent misinterpretations of the questions, and the collection of accurate and homogenous responses. The questionnaire analyzes the business model activities through four dimensions: target segment, value proposition, value delivery, and value capture. In addition, as discussed in section 2.1, innovation will be looked at as new to the firm and new to the industry, adaptation as new to the firm and known to the industry, or no change at all. It is also beneficial that the survey addresses the variety of firms' characteristics and other attributes of innovation.

The firm's strategic emphasis on business activities are measured by asking the respondents to rate the statements on a Likert agree/disagree and importance 1-to-7 category range, along with selective ranking, confidence scales and contingency questions. The use of multiple question types provide diversified insights on the research questions and compensate for limited informativeness of close-ended responses as opposed to open-ended ones with their richness of detail. For reasons of confidentiality, the survey data was anonymized in order to improve the study's credibility (Saunders et al., 2009).

## Sampling

The sampling was conducted by TNS Gallup, through which the survey was sent out to firm's CEOs across Norway to ensure homogeneity of the respondents' level of knowledge of company activities. The survey was sent to 4,000 companies across various industries in Norway, of which 284 CEO's responded. To this end, survey data was collected about firm and industry specifics from a sample of enterprises based in Norway. An overview of the industries surveyed is presented in figure 3, covering seventeen different industry sectors.

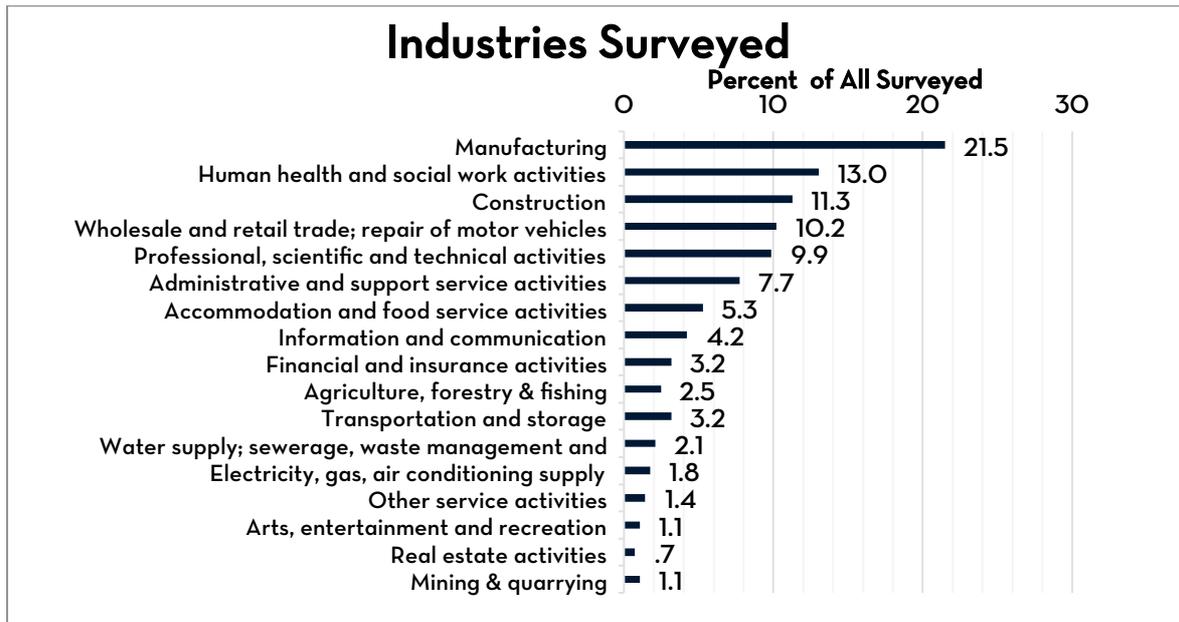


Figure 3: Survey Sample by Industry

## Quantitative Data analysis

From the secondary survey, I was able to analyze the raw data myself. I chose to analyze the data presented in the survey conducted using descriptive statistical analysis in IBM SPSS. Analysis based on frequencies was the best method to get a clearer picture of what activities firms are actually engaging in, justified by my exploratory approach. Business model innovation was analyzed at the component level, target market, value proposition, value delivery, and value capture, as well as at the industry level. Efforts in service innovation, process innovation, and product innovation are also analyzed. Additional firm activities related to collaboration are also analyzed. Changes in activities were distinguished between innovation, adaption and no change. The findings of this analysis are presented in section 4.1.

### 3.2.2 Qualitative Data Collection and Strategy

Though the quantitative findings showed that Norwegian firms are failing to innovate their business models, it did not yet reveal *why* this is the case. Therefore, I chose to supplement the quantitative survey data with qualitative semi-structured interviews to gain more understanding into the underlying reasons behind these results, which are often used to validate findings from questionnaires (Bryman, 2006).

#### *Semi-structured interviews*

A total of eleven interviews were conducted in a non-standardized, semi-structured, and synchronous method. The semi-structured nature of the interviews allowed core questions to be asked, but allowed the participants to discuss the topics more freely than in more structured interviews (Saunders et al., 2009). This was particularly useful as the interviewees varied in background and experience, so I had flexibility to build on questions and interesting points or experiences during the interviews. This freedom ultimately allowed the discussion to flow into areas that may not have been previously considered, but offered tremendous significance to the understanding of my research question (Saunders et al., 2009).

An overview of the interviews conducted are showed in table 4, including the interviewee's name, unless anonymity was requested, position and details about the way the interview was conducted. Only one interviewee requested anonymity, where their specific job title was referred to as a more generic "Manager at Telenor" to give enough background in their position without revealing their identity, as per request. Face to face interviews were the preferred method, but were not always possible due to geographical barriers, time constraints, rescheduling. All were one-to-one interviews that were either in person or via online video conferencing except for Bekk Consulting, which consisted of a focus group interview with myself acting as the moderator. One interviewee requested to remain anonymous, so their name and specific job title was removed from the table. An interview guide is also available in the appendix.

Prior to the interview, all interviewees were told information regarding the purpose of my thesis, and sent the previous report on business model innovation in Norway that I wrote in collaboration with Tina Saebi (Saebi & Singh, 2015), which inspired this thesis. The interviews started with myself elaborating the nature and purpose of my thesis and asking if

they had any prior questions before we began. I received permission from all interviewees to record the interview, which allowed me to give them more attention while ensuring accuracy of their responses being documented. I first asked them to clarify their role in order to verify which questions were best suited for them based on their experience. The questions were primarily formulated as open-ended questions. At the end of the interview, I gave them an opportunity for concluding comments, and if there was anything that we did not cover that they would like to add or was additionally relevant to explore further. All interviewees also welcomed follow up questions if necessary and showed enthusiasm for the study.

My experience was that the interviewees understood the purpose of the interviews and gave insightful and valuable contributions. They were all comfortable, and some expressed tremendous enthusiasm in the topic of discussion. They were also informed they would receive copies of this thesis upon its completion as gratitude for contributing to this research.

### ***Sample***

Eleven participants were interviewed from five companies. These interviews included consulting oriented firms such as Bekk Consulting, Innovation Norway, and Virke, as well as industry specific firms that included Telenor, and Posten. The participants were selected to have a balance between holistic views, as developed through working with a variety of clients as in consulting firms, and industry specific views, that give more insight into the firm perspective as in Telenor and Posten. The firms interviewed were specifically chosen to represent different industries and fields, in order to generate a variety of perspectives. Several of the participants, such as Stian Daazenko, Daae Hans-Peter, Camilla Skjelsbæk Gramstad and Annita Fjuk are also corporate members of the Center for Service innovation, highlighting active participation and expert knowledge in the field of business model innovation and/or service innovation.

**Table 4: Overview of Interviews Conducted**

<i>Interviewee</i>	<i>Position</i>	<i>Type</i>	<i>Length</i>	<i>Date</i>
<b>Bekk Consulting AS; Management Consulting Industry</b>				
Stian Daazenko	Manager and Research Director of Service Innovation Economics at CSI	Focus group	2 hrs.	
Vidar Holm	Principal	Focus group	2 hrs.	
Harald Krogh	Managing Director	Focus group	2 hrs.	
<b>Innovation Norway; Consulting Industry</b>				
Claus Gladyszak	Business Model Innovation Evangelist	In person one-on-one	1 hr.	25.4.16
<b>Posten Norge AS; Postal Industry</b>				
Daae Hans-Peter	Director of Innovation	Video Call followed by telephone	1 hr.	2.5.16
<b>Virke; Trade Organization</b>				
Camilla Skjelsbæk Gramstad	Environmental and CSR responsible	In person one-on-one	30 min.	4.5.16
Sigrid Helland	Senior adviser, Analysis and Industrial policy	Video Call via Facetime	30 min.	10.6.16
<b>Telenor; Telecom Industry</b>				
Annita Fjuk	Head of Innovation Program: Design driven Innovation and Research Director of Service design & innovation at CSI	Online Conference Call via Lync	45 min.	3.6.16
Frank Elter	Vice President Telenor Research	Video Call via Lync	40 min.	3.6.16
Yttri Birgitte	Senior Project Manager: Organisation Culture, Transformation and Service Design	Online Conference Call via Lync	35 min.	6.6.16
*Anonymous	Manager	Online Conference Call via Lync	45 min.	2.6.16

*Table 2 Overview of Interviews Conducted*

### ***Qualitative analysis***

The interviews were all transcribed by myself from the recordings of the interviews. The main findings that emerged from this research were grouped into key concepts in section 4.2 and then compared to the quantitative results in the discussion in section 5.

## **3.3 Evaluation of research**

This section evaluates the trustworthiness of this research in which validity and reliability are analyzed. This section also notes practical constraints and ethical considerations associated with conducting this research.

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### 3.3.1 Quality of research design

In order to evaluate the credibility of the responses collected in this thesis, I address reliability, validity and generalizability of the research strategy I employed in this section.

#### *Reliability*

Reliability is concerned with “the extent to which your data collection techniques or analysis procedures will yield consistent findings” (Saunders et al., 2009, p.156). The deliberately chosen cross-sectional nature of this study may limit probability for similar observations to be reached unless conducted at the same time, and will be likely limited to firms in Norway. This holds for both quantitative and qualitative data. In addition, the qualitative interviews may yield different results if interviewing different types of firms or people with different types of roles within their firm.

In regards to potential errors and biases, the questionnaire respondents were sent the survey materials via email through TSN Gallup, so they could fill out the survey when it was most convenient for them, removing any potential conflicts with *participant error*. The questionnaire was sent to the CEOs of each company because of their deep knowledge of firm activities. However, this may have resulted in potential *participant bias* as CEOs also face pressure to maintain a positive appearance. I hoped to overcome this bias by the anonymous nature of the survey, where results are not linked to either the CEO or the company, but rather analyzed as a whole. To avoid potential *participant bias* in the qualitative interviews, I interviewed respondents from a variety of positions and industries. I had researched each respondent’s background prior to the interview, and opened each interview with questions that helped deepen my understanding about their role in the company.

Spending a significant time exploring extant literature and analyzing the quantitative data on what firms are currently doing, I had some beliefs about potential findings prior to the interviews. Therefore, a potential for *observer bias* should be noted, as I could have been subconsciously searching for substantiation on these findings, but I hoped to overcome this by structuring the interview questions prior to the interviews to achieve objective results. The interviews were also recorded and personally transcribed to limit the risk of *observer error* in the interpretation of the interviews.

### ***Validity***

Validity involves design of legitimate, suitable questions that accurately address the research question we seek to evaluate, so that the findings are actually about what they appear to be about (Saunders et al., 2009). In the survey, previous literature was reviewed and definitions are carefully defined to ensure *content validity*, referring to the extent the questions actually measure what they are intended to (Saunders, 2009). Each question in the survey was phrased in multiple ways to ensure the accuracy of the measurements indeed measure what is intended. To ensure this in the qualitative analysis, the topics of business model innovation, service innovation, process innovation and product innovation are discussed at the beginning of the interviews.

### ***Generalizability***

As much of previous literature is case-based, I sought to explore business model innovation across firms, and contribute findings on a wider scale. In order to do so, I chose to include a large sample size in order to ensure external validity. External validity, or generalizability, is defined as the degree to which the study's results are generalizable (Ghuri & Grønhaug, 2002). A substantially large pool of respondents, 284 firms, is used in the quantitative section of this thesis, spanning different industries with different firm characteristics across Norway. This may limit the generalizability geographically to firms in Norway, but allows for strong generalizability on a nation-wide level. Where the CEO level of the survey participants will serve as another facilitator of accurate and generalizable conclusions as CEOs tend to have profound company and industry knowledge, the results of the survey may have varied if sent to other respondents from the companies.

Additionally, MacKenzie (2003, p. 323) identifies the most common cause for destroying internal and external validity, "is the failure to adequately specify the conceptual meaning of the study's focal constructs." As construct clarity represents a significant gap in extant literature, I dedicated the second chapter of this thesis reviewing literature on the related topics, and proposed my own conceptualization on business model innovation.

### **3.3.2 Practical constraints**

By using secondary data for the quantitative section, I was able to overcome significant time and budget constraints I would have otherwise faced in the collection of the survey data. As for the interviews, time was the main constraint in scheduling, traveling, conducting and

transcribing the interviews. Not all those who were contacted were interviewed, due to timing, bureaucratic processes regarding participation in such studies, or lack of response.

### **3.3.3 Ethical considerations**

The quantitative survey section was conducted anonymously, and consent was given by all interview partners to use their responses in the qualitative section of this thesis. All interviewees had the opportunity to remain anonymous, of which, one requested to have their name removed from this thesis, but still consented to allow their interview, including direct quotes, to be used in this thesis after approving a copy of the interview recording as requested. In addition, all relevant sources employed in this study were referenced.

## 4. Analysis & Findings

In this chapter I present my analysis and findings. In section 4.1, I first analyze the findings from the secondary survey data of the 284 companies' activities regarding business model innovation. The findings generate key insights into the state of business model innovation on the national level in Norway, showing general low rates across innovation activities. In section 4.2, I analyze my the eleven interviews conducted and derive key findings to help develop understanding behind results in the first section, articulating barriers to business model innovation among Norwegian firms.

### 4.1 Low Rates of Business Model Innovation Across Norway

Among the 284 companies surveyed in Norway, it is clear that business model innovation is still in its infancy. The findings show that value proposition and value delivery components were the most innovated, however, the majority of components to the business model remain unchanged. In addition, most industries that participate in innovation or adaptation activities will only do so in certain components of their business model. In addition, more than half of firms report servitization activities while products introduced remain unchanged or only marginally modified. There is also a high use of industrial partners and customers as sources of innovation, but lack of utilization with of scientific partners. Finally, most companies report limited change to their organizational activities.

#### 4.1.1 Business Model Innovation

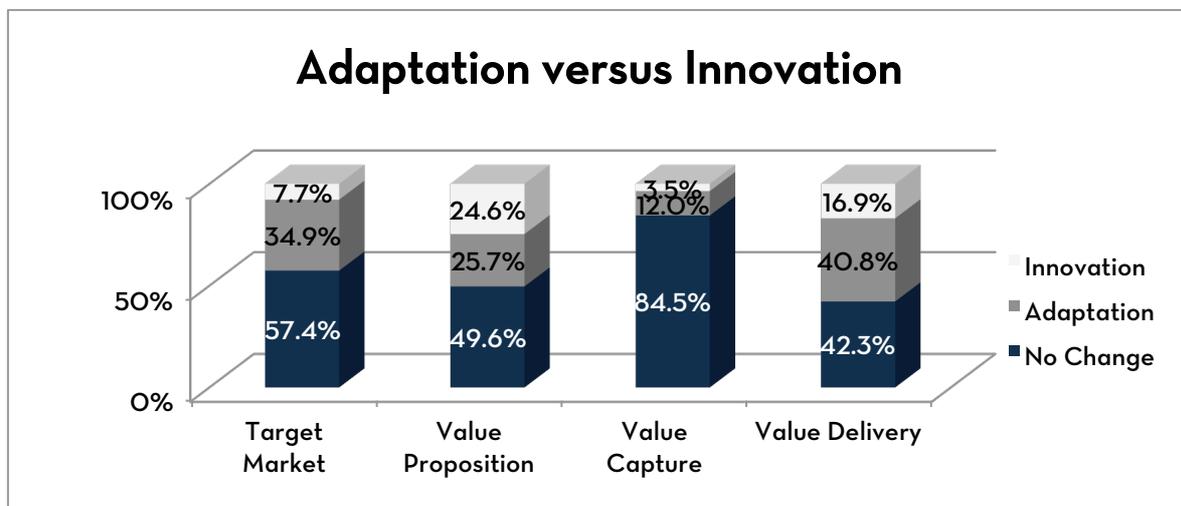


Figure 4: Business model innovation per dimension

Across business model dimensions, the majority of companies remain mostly unchanged. As competition is reported as intense across industries, firms are leaning towards introducing new products or services to customers or bundling them in different ways that are new to both the firm and the industry. This is evident where firms reported the most change occurring in the value proposition and value delivery dimensions of their business models. The most innovation occurred in the value proposition, where 24.6% of firms reported innovating that component. Value delivery was reported to have less innovation, but more overall change, with 57.7% of companies adopting either adaptations or innovations to that dimension. In contrast, the least amount of change occurs in the value capture dimension, where 84.5% have reported no changes their main sources of revenue or pricing schemes and only 3.5% of firms reported innovation.

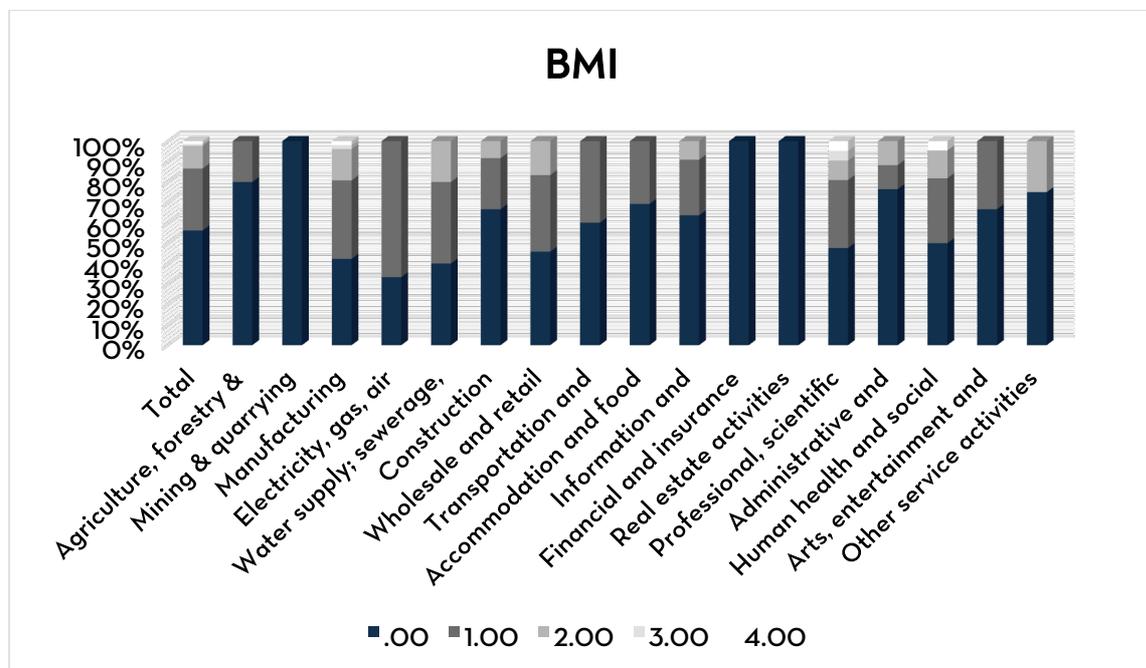
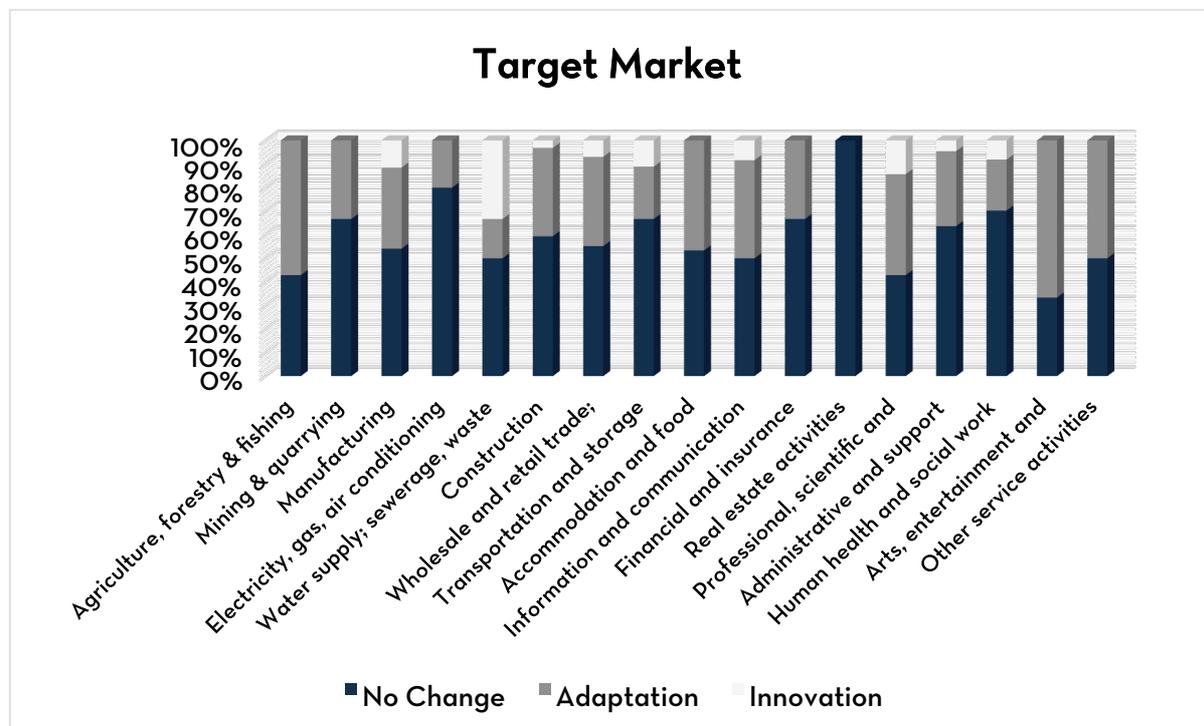


Figure 5: BMI Across Industries

### ***BMI: target market***

Companies can innovate the target segment of their business model by targeting a new segment, entering a new market, or targeting customers that competitors have ignored (Saebi, 2015). Across industries, water supply, sewage and waste, had reported the most innovation with 33.3% of firms innovating their target market, which is more than double than the second most innovated target market in the professional, scientific and technical industries which reported 14.3% of innovation. Several industries reported no innovation, but only the real estate industry reported neither adaption nor innovation in their target market.

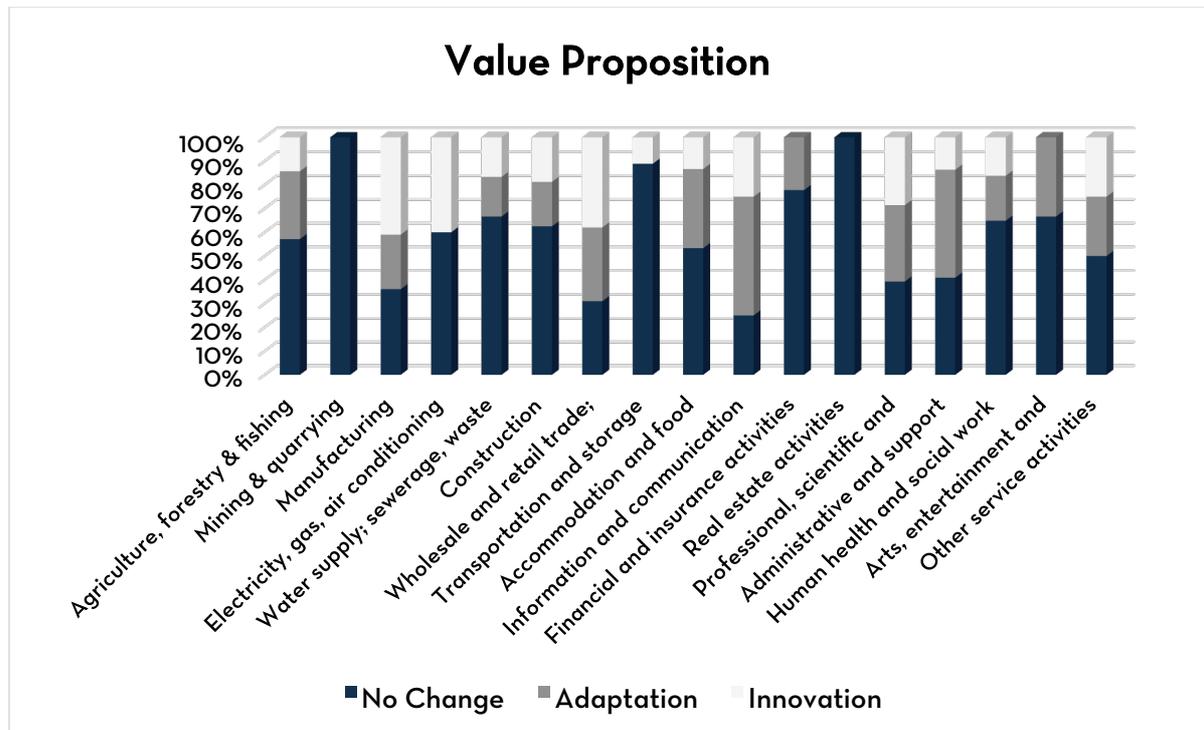


*Figure 6: Changes in target market*

### ***BMI: Most innovations occur in the Value Proposition***

Across all industries, the value proposition has reported to experience the most innovations among business model components. A company can innovate its existing value proposition by offering a new bundle of services and products (Saebi, 2015). The most innovation to the value proposition occurred in the manufacturing industry, with 41% of firms reporting innovation and 23% adaptations. The electricity, gas and air conditioning industry followed

reported a similar innovation rate of 40%, but no adaptation, showing less change overall. In addition, 37.9% of wholesale and retail firms reported innovation. The information and communication industry reported adaptation rates of 50%, resulting in the highest amount of overall change in the value proposition among industries. Neither innovation nor adaptation was reported in either mining and quarrying or real estate activities.



*Figure 7: Changes in value proposition*

### ***BMI: Most adaptations in value delivery***

Where most innovation across industries was reported in the value proposition dimension, the value delivery dimension was reported to have the most adaptations. Innovating the value delivery dimension of the business model may include changes to the value chain, and finding new ways to collaborate with parties in or outside of a firm's supply chain. This can also include significant changes to the traditional roles and power relationships within an industry (Saebi, 2015). The most innovations to value delivery, occurred in the arts, entertainment and recreation industry with 33.3% of firms innovating. The information and communication, professional, scientific and technical, and other service activities industries follow with the second highest innovation rate of 25%. The accommodation and food service industry experienced the most overall change with 13.3% of firms innovating and 60% adapting. The mining and quarrying, water supply, sewerage and waste, construction, information and communication, financial and insurance activities, and arts, entertainment

and recreation industries all reported around two thirds of firms changing their value delivery overall. Similar to the value proposition dimension, the real estate activities industry reported no change.

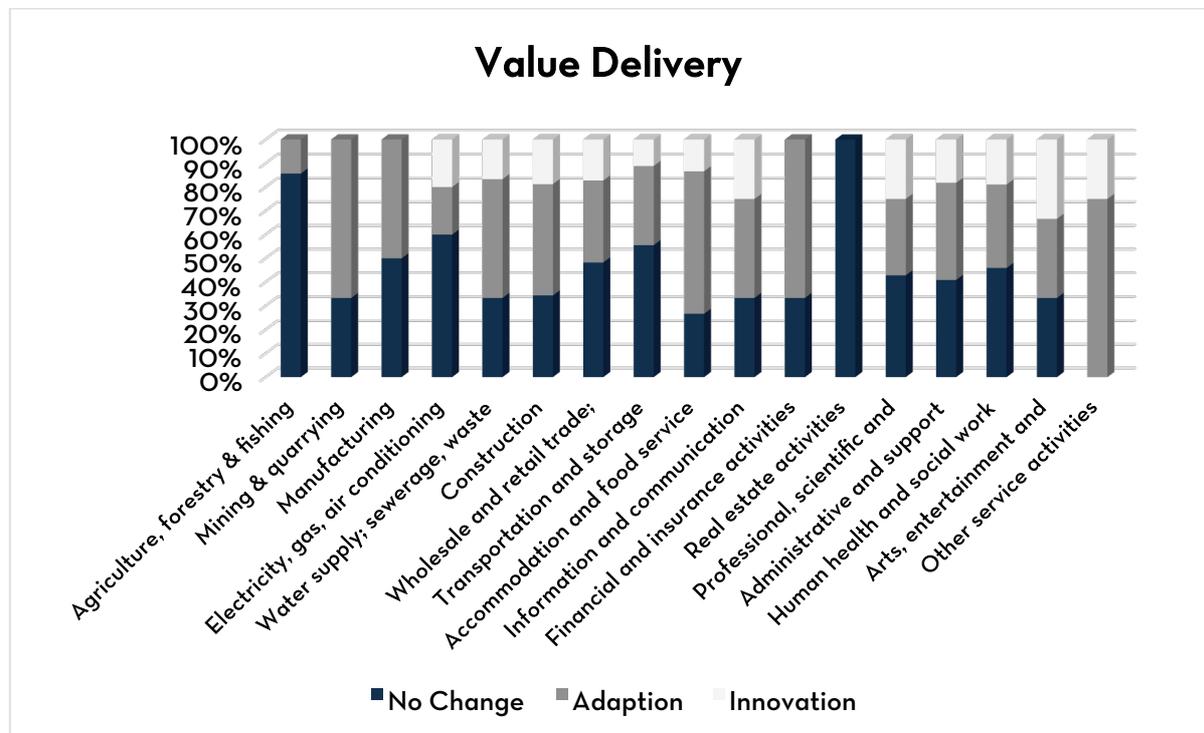
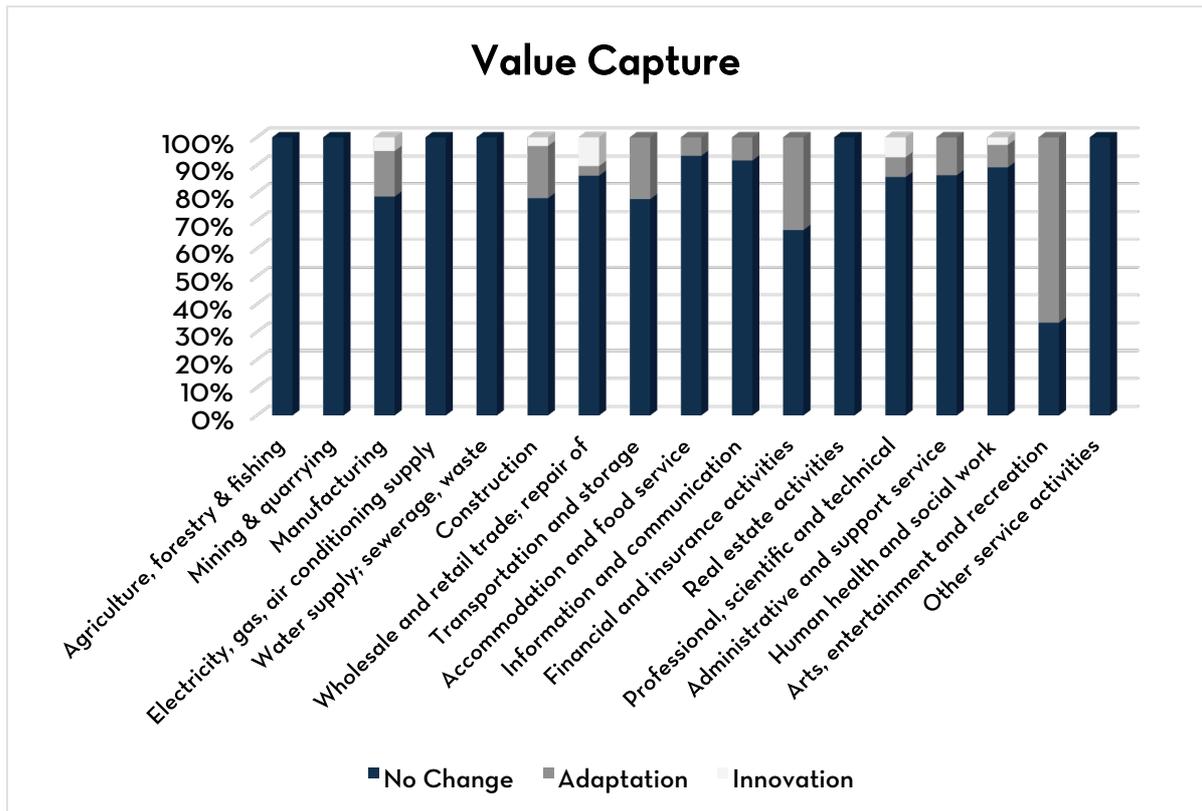


Figure 8: Changes in value delivery

### **BMI: Little change in value capture**

Value capture resulted in the least amount of innovation and overall change. Innovating the value capture component of the business model may include offering new pricing schemes, sources of revenue, and the use of trademarks, patents and copyrights. Six out of the 17 industries surveyed reported no change to this component. Only five industries reported innovations to this component (Saebi, 2015). The majority of changes to the value capture components were in the form of adaptations. The arts, entertainment and recreation industry reported the most overall change with 66.7% of reporting adaptations to value capture, but no innovation. Similarly, the financial and insurance activities industry experienced the second highest rate of overall change reported 33.3% adaptation, and no innovation. The highest rate of innovation was reported by the wholesale and retail trade industry at 10.3%, well above other rates of innovation in this dimension. Many industries reported no change at all.



*Figure 9: Changes in value capture*

#### 4.1.2 Few new products released

Product innovation is the market introduction of a new good or service, or a significantly improved good or service with respect to its capabilities, such as quality, user friendliness, software, or subsystem (Saebi, 2015). The majority of products remained unchanged, where over half (%) of the products companies released were reported as unchanged or only marginally modified on average. In contrast, only 14.35 new products were released on average, constituting 13% of released products overall. In similar rates, 14.2% of released products were adaptations that were already known to the market. The remaining 18.9% of products released were significantly improved versions of products previously released.

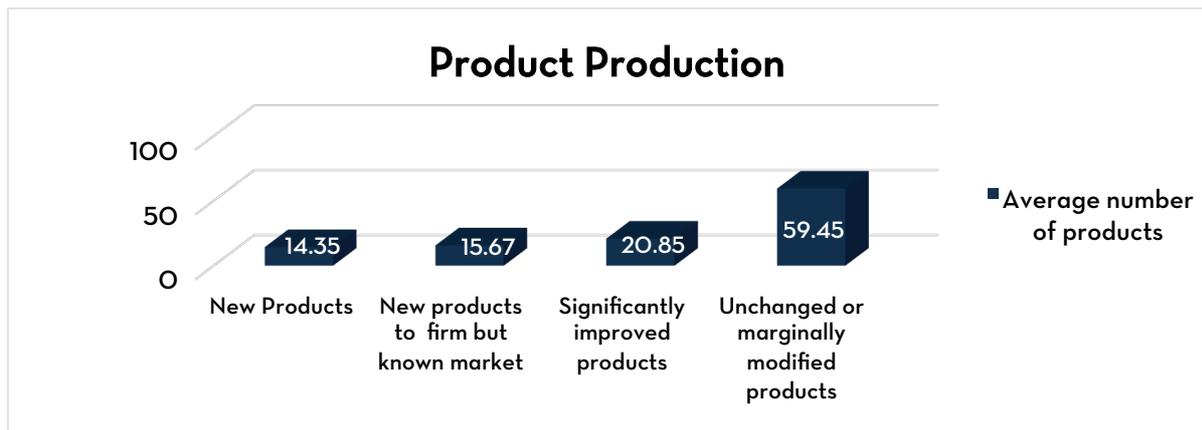


Figure 10: Product innovation

### 4.1.3 Emphasis placed on customization

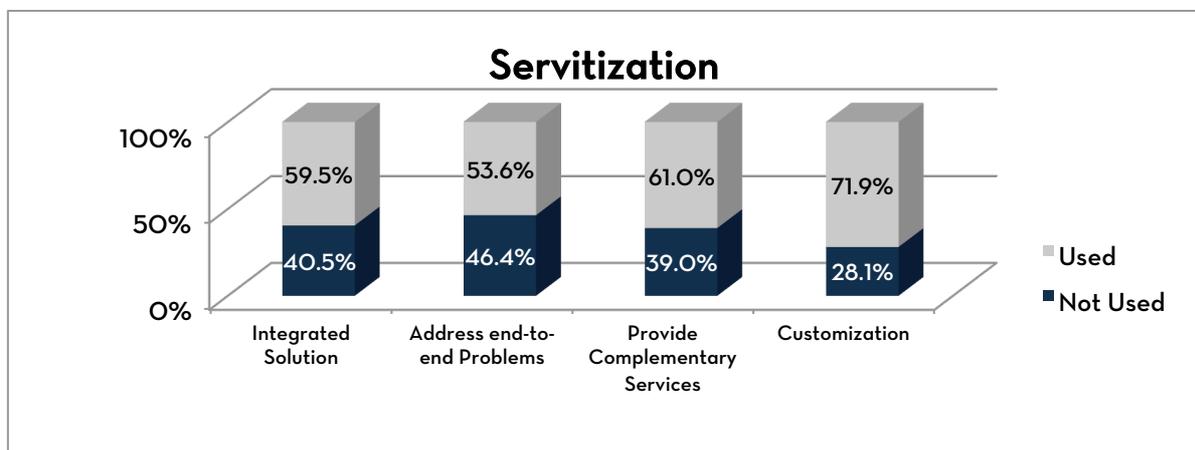
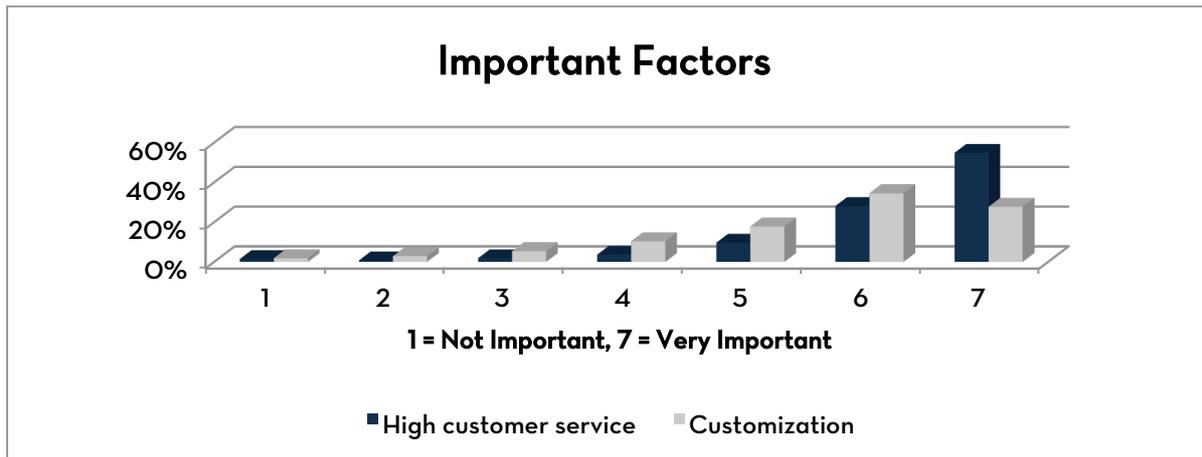


Figure 11: Servitization

Servitization involves firms, often manufacturing firms, developing the capabilities they need to provide services and solutions that supplement their traditional product offering (Saebi, 2015). Notably, no firms have reported innovation in any aspect of servitization across industries. However, more than half of companies report engaging in servitization activities. Customization was the most used servitization activity, used by 71.9% of firms. The other servitization activities: integrated solutions, addressing end-to-end problems, and providing complementary services, follow in frequency of use with rates of 59.5%, 53.6%, and 61%, respectively.

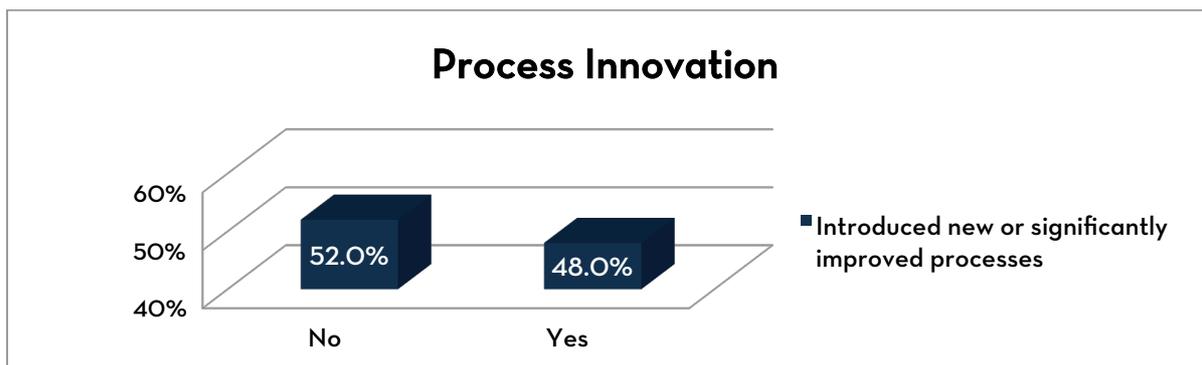


*Figure 12: Important Factors in Servitization*

Customer service was reported as very important factor for companies facing their closest competitors. This strongly supports the high usage of customization across firms. High customer service was reported to be highly important, but slightly less important compared to customization, supporting high, yet lower rates of integrated solutions, addressing end-to-end problems, and providing complementary services among firms.

#### 4.1.4 Process Innovation

A little more than half, 52%, of firms reported that they did not introduce any new or significantly improved processes for producing or supplying products or services that were new to their firm.



*Figure 13: Process innovation*

#### 4.1.5 Business as usual

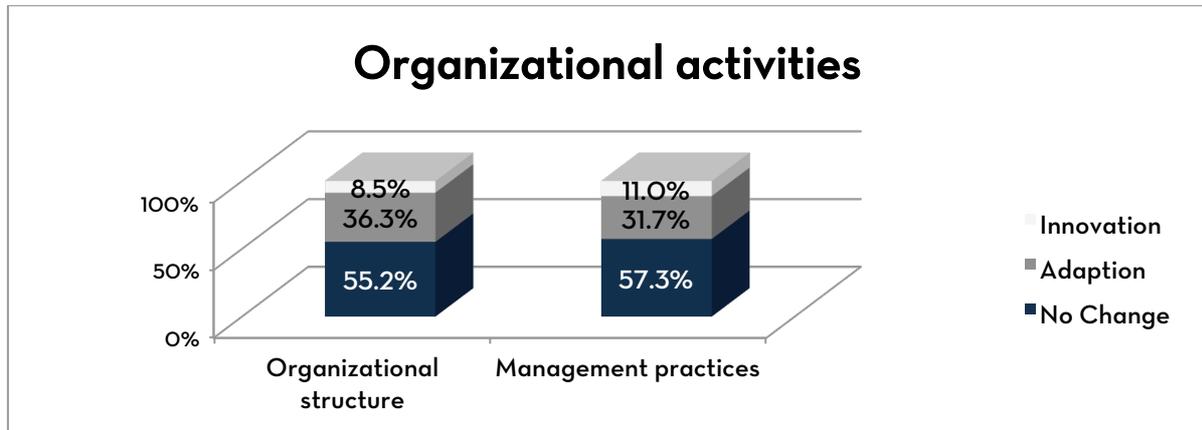


Figure 8: Changes to organizational activities

More than half of organizational activities remain the same, with 55.2% of firms reporting no change to organizational structure and 57.3% reporting no change to management practices. Though more overall change was reported to occur in organizational structure, management practices had a higher rate of innovation at 11% and 8.5% respectively.

#### 4.1.6 Underutilization of Scientific Partners

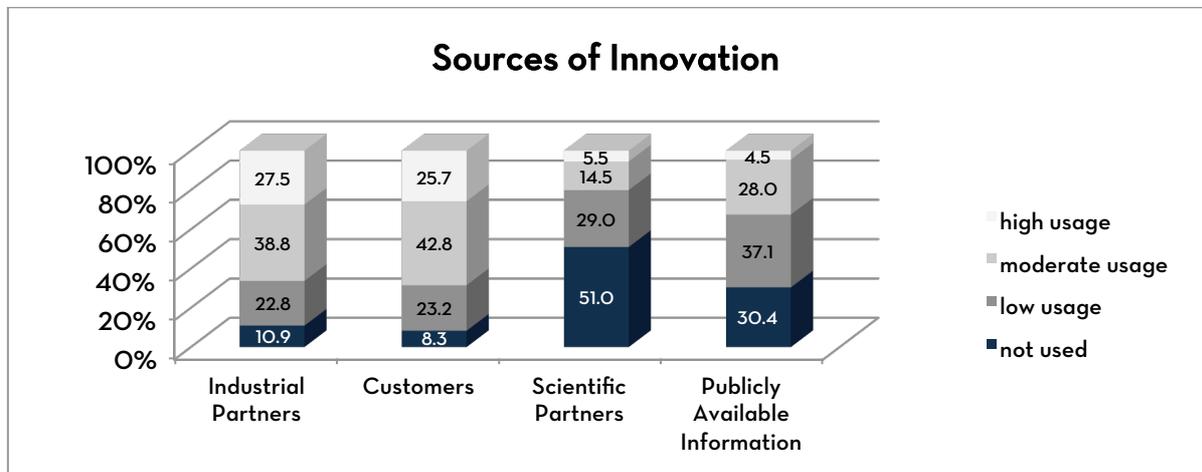


Figure 9: External sources of innovation

Industrial partners were the highest use source of innovation among firms, 27.5% of companies utilizing their information to a high degree. This included information within firm or firm group; competitors or others firms in their industry; suppliers of equipment, materials, services, or software. Customers and/or clients, however, were the overall highest source of innovation, where 91.7% of firms report using them to some extent. Publicly available information was the third highest source of innovation where 69.6% of firms used

publicly available knowledge, but mostly on a low or moderate extent. This consists of professional and industry associations; technical, industry or service standards; scientific journals and trade/technical publications; conferences, trade fairs, exhibitions. Scientific partners remained majorly unused, where 51% of firms did not use scientific partners at all, and only 5.5% of firms utilized them to a high extent. This consisted of universities or other higher education institutions; government or public research institutes; consultants, commercial labs, or private R&D institutes, and were the least utilized source of innovation.

#### 4.1.7 Concluding remarks

In order to understand why Norwegian firms report the low rates of innovation presented in this section, the following section explores the potential reasoning behind the lack of innovation among Norwegian firms through qualitative interview analysis.

## 4.2 Current Challenges to BMI

Based on in-depth, semi-structured interviews with Bekk, Posten, Telenor, Virke, and Innovation Norway, I identified key barriers to business model innovation among Norwegian firms and how companies should work around these barriers. These barriers can be grouped at the individual level (4.2.1), the firm level (4.2.2), and industry level (4.2.3). A comprehensive overview of quotes used from this analysis can be found in the appendix. For a clearer overview, the main challenges found in this section are presented in table X below.

**Table 5: Overview of BMI Challenges;** Source: Author's own research

Level	Challenges
Individual	Lack of business model mindset
Firm	Radical versus incremental mindset – Lack of innovation mindset?
	Lack of innovation culture
	Need for managerial support
	Need for organizational restructuring
	Balancing innovation and current activities
Industry	Transitioning from products to services
	Transitioning from a transactional to a lifetime value perspective
	Need for redefining the market
	Underutilization of external sources of innovation
	Norwegian Culture

### 4.2.1 Challenges at the Individual Level

*“People by definition [are] resistant to change” – BEKK Consulting*

#### ***Lack of BMI mindset***

A significant problem firms face is that companies are not familiar with thinking within business models. The interviews revealed that many firms are unable to communicate it, or are only aware of parts of their business model. Some firms even face the barrier of simply not knowing what their business model is, or should be, and/or do not understand innovation itself. It is clear through the interviews that companies have no chance at innovation if they do not understand what innovation is.

*“It’s kind of hard to innovate your business model if you don’t know what your business model is.”- Virke*

Business model innovation, and even sometimes the general concept of innovation, was noted as often not being seen as an agenda for companies. Some interviewees argue that trends such as heavier emphasis on customer orientation, customer centricity and even digitization, have replaced the hype of innovation among firms. Additionally, most firms do not think in terms of performing business model innovation. Some interviewees express that firms rather focus on specific problems they wish to solve, or goals they seek to achieve. Thus, though the activities associated with achieving these goals may, in turn, lead them towards modifying or innovating their business model, that business model mindset is not present throughout the process. This stresses the need for establishing a business model mindset among firms.

*“[Companies do not think] in the holistic view of the architecture of the company and how it conducts business.” – Innovation Norway*

Larger firms have many different areas of business, having multiple business models within one firm, makes establishing a business model mindset across the entire organization challenging. Large firms, such as Posten and Telenor, discussed different organizational barriers where they are aware of business model thinking, but have multiple business models, expanding across, and within different areas of business. More complexly, with large established companies, as in Telenor and Posten, mapping one’s business model becomes increasingly difficult, as they often develop, more than one, or even many business models within the company.

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*“Potential that lies within with thinking more holistically about innovation, and not just product and or process innovation.” – Innovation Norway*

Business model innovation offers a more holistic approach to thinking about innovation. The interviews also revealed that business models could be utilized as a form of communication, or tool, that allows the organizations to discuss business activities and innovation efforts. Therefore, it is not only a way of thinking, but also communicating within teams, so that they can develop a common language to discuss innovation. A shared language is a vital part of facilitating business model innovation. Ultimately, business models ultimately presents a way to understand the synergies and potential of combining resources or activities that allows the firm to drive towards innovation, and firms must develop a business model mindset.

### ***Radical vs Incremental Innovation***

At a more general level, firms often do not refer to innovation at all, but rather describe a state of constant development or continual improvement. This can be characterized as more of incremental innovations that are more difficult to identify as innovations as radical innovations. Radical business model innovation is more common among new entrants than existing firms that see more incremental innovation. Posten, for example, emphasizes *working smarter*, or *doing things better* as opposed to using innovation terminology.

## **4.2.2 Challenges at the Firm Level**

### ***Lack of Innovation Culture***

Base on the interviews, companies identify the need to innovate, but that is often only because they are forced to change in order to survive. Rather than having a pragmatic approach to innovation, they are forced into adaptations from competitors.

The importance of investing in the corporate culture was discussed in the interviews as tremendously under invested and underestimated. The interviewees stress that in order to create a culture to foster innovation activities, people need real incentives to change, and a visible burning platform. Altering the business model results in shifting people's responsibilities and the organization they are used to, essentially changing people's fundamentals, and interfering with their lives. Firms must work to change the mindset of their employees, how they think, spend their time, and most importantly, how leaders influence the way the company works and does things. Some interviewees discuss a significant problem facing large companies where people are too consumed with their daily

tasks; they are not able to work on new ideas that can drive innovation forward. Thus, employees should be able to balance doing ordinary, day-to-day, work with new, more innovative ways of working.

Telenor discussed their attempts to generate innovative activities among employees by launching a program called Ignite. In hopes of sparking creativity among employees, employees can submit ideas, and the people with the top ten ideas will have an opportunity to pursue the idea further, and get relief from their current duties for three months and work with coaches to refine their ideas.

### ***Need for managerial support***

Top-level commitment is vital in order to facilitate both creating an innovation culture or mindset, and also in implementing innovation activities within the firm. There must be a burning platform to mobilize the organization for change. It is vital to have a strong mandate in order to actually change firm behavior and patterns. Companies must change the organizational activities and incentives surrounding those activities to encourage innovation. Leadership must ultimately make people challenge the system.

Commitment must be spread throughout the leadership, but there is also an increasing need for developing leaders dedicated to innovation itself. Innovation may be prioritized, but may fail if activities and efforts are coordinated accordingly. Posten, for example, has created a position of Director of Innovation, signaling the adoption of these ideas into practice and the demand for such leadership skills to drive innovation forward.

### ***Need for Organizational Restructuring***

*“It often boils down to people, and people's minds and structures and what we're used to.” – BEKK Consulting*

Another key barrier holding firms back from innovating their business model is its organization itself, which is resistant to change. Companies must rethink the way they organize incentives and cooperate across silos and departments. The governance around the organization, and organization of incentives must change in order to adapt to the shifting environment the firm operates in. Systems, structures, cooperation across silos and departments, are often deeply rooted in the company's legacy, which makes structural change difficult. Both Telenor and Posten describe their companies as having long histories and traditions, where some entities within the organization even have their own traditions, posing additional significant challenges in trying to implement organizational change. .

### ***Balancing innovation and current activities***

A particular challenge firms mentioned is that in order to facilitate business model innovation, they must do so while simultaneously executing their current business activities. Many ideas cannot be readily executed within the current business model, and therefore have to set up experimentation on the side of, or outside the business model of the firm. The interviews revealed a need for companies to develop skills beyond the execution of their current business model, as companies are often forced into executing current activities and experimentation simultaneously.

### ***Transitioning from Products to Services***

The interviewees discuss difficulty in attempting to change the traditional focus on producing perfect products rather than on market or customer orientation. There is a bias towards being product and technology oriented over being market oriented, taking away attention from the customers, making the transition from product to service orientation difficult. Posten discussed transforming their business model to redesign their value proposition from several hundred products to a few services, shifting focus on how they deliver value to customers, highlighting the need for consolidation and X

### ***Transitioning from a transactional to a lifetime value perspective***

Along the logic of product-orientation, firms were discussed to have a transactional perspective, thinking in terms of their cost structure and revenue streams, ultimately limiting their perspective of their business models to the value capture component. Companies might have an abundant knowledge of their internal side, but less about the other components of their business. Firms are not very good at investigating alternative positive methods of value capture.

Many companies are beginning to identify the need to shift from goods dominant logic to service dominant logic. This entails focusing on the lifetime value of the customer as opposed to the transactional perspective characteristic of most firms as well as customer orientation. Where most firms talk to their customers, many do not utilize them in a systematic way that allows firms to empathize with them. The majority of companies are still product oriented, and not consumer, or service oriented. Companies that do achieve this though, typically are noted to have astonishing results. Some companies now, are not charging for transactional services, even offering some service for free, in order to focus on developing customer loyalty and lifelong clients.

*“By shifting from product based to service based logic, you also have to do something about how you handle profitability and how you look at value capture.” – BEKK Consulting*

Under previous logic, products or services that were unprofitable were ultimately cut from the firm’s offerings. However, thinking in a more holistic perspective, firms can allow one service to be unprofitable if it contributes to the total value of the relationship in the long-term. Therefore firms must rethink the way they capture value, and adjust their value proposition accordingly.

### **4.2.3 Challenges at the Industry Level**

#### ***Need for Redefining Industry***

The interviews noted that companies tend to be narrow-minded and shortsighted, where they fail to take a broader perspective of their environment and do not realize how it will affect them until they actually experience competition in the marketplace. So instead of exploiting potential opportunities through business model innovation, they are often forced into adapting parts of their business model in order to survive. Two of the firms interviewed, Telenor and Posten, have recognized this barrier, and already have begun transforming their business models to reflect their redefinition of their target market and industry. Telenor has discussed transitioning from being a traditional mobile operator to being a digital service provider. Additionally, Posten is shifting their organization from a pure mail company to a logistics company, while also expanding their market base in transitioning from a pure Norwegian player to a Nordic player.

#### ***Underutilization of External Sources of Innovation***

Where Telenor discussed partnering with companies to co-create new services, and working with customers, many interviewees revealed that collaboration activities provided some challenges. Though many firms talk with customers, they do not do so in a systematic way that truly empathizes with them.

As many interviewees interviewed were either partners to, or worked in firms that were partners to the Center for Service Innovation, many discussed their importance of collaborating with Universities as a good forum for discussing challenges they have so that solutions can be implemented in other companies. Universities are viewed as sources for academic knowledge and state of the art research. Despite this, there are increasing difficulties in utilizing universities as a source of innovation.

### ***Norwegian Culture***

As this research is limited to firms in Norway, it is important to discuss the additional barriers to innovation posed by the Norwegian market. The interviewees discussed that though they are Norwegian companies, they believe many of the challenges they face are probably the same barriers presented in most firms around the world. Telenor, for example, explained that despite being a Norwegian company, their international locations all face similar barriers, indicating that these findings may not be all limited to Norwegian firms.

Some interviewees discuss recent shifts in the Norwegian economy and its impact on firms mostly operating in the oil and gas industry, where profitability was particularly high and stable previously and did not have an urgency of innovation. When these firms began to experience tremendous turbulence, they had to innovate to survive. The changing economic climate in Norway due to drop in oil prices could in turn, be a key driver of innovation, and act as a burning platform in some companies to adopt an innovation focus.

Alternatively, interviewees also touched on the possibility of Norwegian culture as a potential hindrance on innovation activities. Norwegians were noted to have a less formal approach to innovation activities compared with more systematic approaches. However, the impact of the Norwegian approach is unclear, and did not seem to present itself as a distinguishable barrier among firms.

#### **4.2.4 Concluding remarks**

The interview results presented a variety of barriers facing business model innovation. In the next section, these findings will be compared to that in section 4.1, in order to contextualize the results and identify potential implications as to how to overcome these barriers.

### **4.3 Overview of Findings**

The objective of the analysis in chapter 4 was to understand why Norwegian firms are not successfully innovating their business models. In sections 4.1 and 4.2, I presented the results of the findings and analysis of this thesis. The quantitative analysis in section 4.1 presented findings of the state of innovation, through breaking down firm activities by component and various focuses. The interview analysis in section 4.2 provided additional insight into the underlying reasons of the results in 4.1, identifying the challenges firms are currently facing to business model innovation. Together, these sections not only presented challenges to

BMI, but also implications on how to overcome these barriers. Analyzing the survey and interview results in tandem, I could then draw out some overarching implications presented in table 6.

**Table 6: Findings and Managerial Implications;** Source: author's own research

<b>Survey (4.1)</b>	<b>Interviews (4.2)</b>	<b>Implications</b>
	Lack of BMI mindset	<i>Develop a business model perspective towards innovation</i>
Most innovations in the value proposition; High use of servitization	Challenges facing transitioning from product-orientation to service-orientation	<i>Redefine value proposition</i>
Value delivery comprised of mostly adaptations	Firms innovate in order to survive	<i>Innovate value delivery before forced to</i>
34.9% of firms report adaptation, and only 7.7% innovation.	Forced adaptation	<i>Redefine Target market</i>
85% of firms report no change in value capture	Firms must rethink value capture; transitioning from transactional to lifetime value	<i>Rethink the way we capture value</i>
52% of firms have not changed processes; 55% of firms have not changed organizational structure; 57% of firms have not changed management practices	Addressed the need for organizational restructuring, capabilities for balancing current activities with innovation, managerial support, and dedicated leadership	<i>Realign organization to facilitate innovation</i>
91.7% of firms use customers; 25.7% to a high extent; 51% of firms do not use scientific partners		<i>Utilize external sources of innovation</i>

## **5. Discussion & Conclusion**

### **5.1 Discussion**

In this thesis I have presented a model towards a business model perspective to innovation, found low rates of business model innovation activities across Norwegian firms, and articulated the challenges Norwegian firms face in innovating their business model. In section 2.5.2 The model presented built on previous literature, and attempted to converge related, but ambiguous conceptualizations in extant literature. Through this perspective, I offer the proposition that business model innovation has more challenges than other innovation activities, because it encompasses challenges from these activities within the business model. I have found that both the model towards a business model perspective to innovation, and this proposition are supported by my findings in chapter 4 of this thesis. Section 4.1 contributes new findings in firm activities across Norway, where the barriers to these activities presented in section 4.2 follows and supports previous research on the barriers to business model innovation.

Additionally, this thesis supports findings in previous literature regarding to barriers to business model innovation. However, this thesis also offers a different perspective towards approaching these barriers, in that it highlights that many of the barriers associated to business model innovation are due to other activities such as service innovation, process innovation, and product innovation taking place within the business model. This addresses a gap in extant literature exploring the core logic, or specific components of business models.

### **5.2 Managerial Implications**

The conceptualization of business model innovation as an overarching architecture to other innovation activities does not only help converge related topics in academia, but also allow for a framework to managing innovation activities. Rather than evaluating different types of innovation separately, where each have barriers of their own, managers can address these barriers from a holistic perspective. Thus this business model perspective towards innovation contributes a framework for facilitating innovation activities in the firm.

### **5.2.1 Develop a business model perspective towards innovation**

Companies will be better prepared to face barriers to innovation if they approach it from a business model perspective. The interviews support this notion of a business perspective to innovation, where they emphasize the potential of looking at firm activities from a holistic view. Business model innovation does not only represent a sustainable competitive advantage, but also a way of communicating throughout the company. Instead of looking at barriers to innovation as separate challenges, this perspective allows firms to see the relationship between the overlapping innovation activities, so they can better overcome these barriers. It also allows managers to understand that engaging in certain types of activities may require changes to the overall business model.

### **5.2.2 Redefine the value proposition**

Firms have reported the most innovations within the value proposition component of the business model. Combined with the interview findings of firms placing heavy emphasis on innovating products and services, this supports the proposal that service and product innovation are concentrated predominantly in this component.

### **5.2.3 Innovate value delivery before forced to**

The survey showed that 70.7% of all changes to the value delivery component are adaptations, implying that most firms are merely adapting to other players in the market, rather than being pragmatic. The interviews reveal that many companies are forced into adaptations to compete with companies that innovate within the industry. Instead of adapting this component as a survival tactic, firms should actively attempt to innovate this section in line with other components, in a more pro-active and pragmatic way.

### **5.2.4 Rethink the way we capture value**

When the value proposition and value delivery is transformed, you must rethink the way value is captured. Where more than half of firms reported changes to both value proposition and value delivery components, only 15.5% of firms reported changes to the value capture component, where only 3.5% of which was considered innovative. One way firms can rethink capturing value is to transition from a transactional perspective to a lifetime perspective of value. Instead of focusing on the profits of customers on a per sale basis,

companies should evaluate a customer's value over their entire relationship. This allows for a customer-centric approach while allowing the firm to explore other activities that though may not seem profitable on a per-project basis, can deliver tremendous added value to customers, increase their lifetime value, and make the business model more innovative.

### **5.2.5 Realign organization to facilitate innovation**

Perhaps the lack of business model innovations among firms can be explained through a lack of innovations in organizational activities and processes as seen in section 4.1.6. Business models are often firmly rooted in a firm's organizational structure, and management practices can also act as a key driver for business model innovation. Therefore, it is not surprising that where the majority of business models remain unchanged, so do their organizational activities. There is still an enormous opportunity for firms to innovate their business models, particularly in value capture, where 85% of firms have not changed. Additionally, companies must simultaneously continue successful execution of their current business model while conducting innovative activities. Organizational structure plays a vital role in how firms can innovate. Some companies find it best to innovate certain components in their current model, and some find it best to develop a new model along side their current model. So in further innovating business models, it is important to consider the necessity to change organizational activities accordingly.

### **5.2.6 Redefining the industry**

Firms have shown a variety of activities in changing their value proposition and value delivery. However the interviews also demonstrated that by transforming the value proposition and value delivery segments, particularly with heavy emphasis on customization, there is significant pressure to redefine the target market, or potentially the overall industry the firm operates in. Coupled with the pressures from emerging technology and changing customer preferences, evaluating this segment is a vital to the firm's sustainability.

### **5.2.7 Utilize external sources of innovation**

Previous literature and the interviews all stressed the importance of utilizing customers as a source of innovation. In this study, customers were found to be the highest used source of innovation, with only 91.7% of firms reporting the use of customers, 25.7% of which to a high extent. However, the interviews implied that though most firms involve customers, they

often do not do so in a methodical way, implying the need to reevaluate the customer relationship, and better utilize their involvement in the process.

Scientific partners were found to be acknowledged as a tremendous opportunity as a source of innovation, but was not highly used by companies. More than half of firms reported that scientific partners were not used, and only 5.5% of firms stated using them to a high extent. The interviews highlighted various barriers of using universities as partners, as there is often a mismatch between purposes and communication while also being significantly more time consuming. The interviews stressed that universities must translate findings from academic to practitioner language in order to be understood in a useful manner by practitioners. Therefore, universities should also investigate how they can improve their own value proposition to firms as a source of innovation, and their activities in how they deliver value to the business market, to in turn, be utilized as a source of business model innovation among firms; and managers should investigate how to better incorporate scientific partners into the innovation process while remaining efficiency.

### **5.3 Theoretical Implications**

Well-developed definitions are fundamental to theory development (MacKenzie, 2003). However, many articles fail to explicitly define the focal concepts of the research, which undermines the validity of the study which posing significant problems for academic progression. Precise definitions are vital to the development of research in regards to knowledge sharing and allowing other to comprehend and be able to criticize and reproduce findings (MacKenzie, 2003).

Despite extensive extant literature on business model innovation, the a of commonly agreed upon definition significantly hinders academic progression of the concept while encouraging diverging concepts to emerge. In addition, this confusion regarding business model innovation only becomes more profound when taking service innovation, process innovation, and product innovation into account. This thesis contributes clarifying conceptualization of the overlapping nature of these various types of innovation in academia, presenting an opportunity to lay the foundation for a more cohesive and structured way of defining innovation, and its various components.

By adopting a business model perspective, this thesis presents the first holistic perspective towards innovation that incorporates service innovation, process innovation, and product innovation. No other academic paper thus far has analyzed business model innovation, service innovation, process innovation, and product innovation simultaneously. Therefore, this thesis offers a starting point for further research on exploring various aspects of innovation in tandem.

In addition, this thesis builds upon previous literature on barriers to business model innovation by adding further understanding of the complexity of the barriers emerging from different innovation activities. By seeing service innovation, process innovation, and product innovation as activities within the business model, a more cohesive conceptualization of business model innovation can be used to further identify potential barriers, antecedents and moderators not yet identified in current research.

## **5.4 Future research & limitations**

Before this line of research is continued, it is vital that the definition and concept of business model innovation is agreed upon in academic fields, to limit further confusion and converge previous research into a commonly accepted theory in order for this field to progress. The business model innovation perspective should also be developed further to form a comprehensive academic basis on the field of innovation within the firm. However, this conceptualization of business model innovation can contribute a starting point for a more holistic analysis of innovation activities.

Since the survey and interviews were limited to Norwegian firms, I have no basis for generalizing any statements beyond the Norwegian market. Therefore, it is important to note that generalizations represented may not be accurate on an international scale. However, this also provides a tremendous opportunity to expand this research to include other markets and potential for longitudinal study that compares business model innovation activities over time. Business model innovation is still in its infancy. This thesis contributes a step towards converging not only the variations in business model innovation literature, but on innovation literature overall, and managing innovation from a business model perspective, offering significant opportunities for future research.

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