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# **Business Model Innovation in a KIBS firm**

Case study from a dynamic capability perspective

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**ABSTRACT:**

**Aim** – The dynamic nature of today’s business environment presents challenges for knowledge intensive business services (KIBS) as they operate in markets where shifts in technology, market demands, and regulatory requirements are constant. These firms must continuously develop and adapt their business and resource base to remain competitive to address evolving customer needs. This study seeks to understand which factors drive the process of business model innovation in a KIBS firm, focusing on the role of dynamic capabilities in this process.

**Framework** – This study is based on three theoretical concepts. First, the business model and business model innovation literature are explored to create a firm basis for the theoretical background of the thesis. Following this, is the presentation of KIBS including the different elements constructing the concept of a KIBS firm. Finally, the dynamic capability literature is presented including the application of the microfoundations framework. All three research concepts are combined in a theoretical framework to be applied in the empirical section.

**Methodology** – The empirical study is conducted as a single case study examining a KIBS firm promoting the digitalisation of the built-up environment, operating in the Finnish IT-sector. The study is conducted through 11 semi-structured interviews with key persons closely participating in the formulation and implementation of the company’s business strategy. The interview data is analysed using the Gioia method, where the analysis first starts by formulating the first-order concepts and combining the second-order themes based on these. Finally, the aggregate dimensions are formulated.

**Findings** – The findings of the study expose that KIBS firms face unique opportunities and challenges when utilizing dynamic capabilities for business model innovation. Furthermore, the four different aggregate dynamic capability practices summarizing the drivers of business model innovation in a KIBS firm based on the research are: Market-Driven Strategic Responsiveness, Customer-Centric Innovation, Organisational Agility and Resource Allocation and Learning and Knowledge Integration.

**Conclusion** – This thesis concludes with the theoretical and managerial implications and suggestions for future research. The managerial implications emphasize the importance of collaborative organisational culture and open innovation in managerial actions and further research is proposed to the examination of multiple KIBS companies across various knowledge-intensive industries. Finally, the thesis concludes with presenting the limitations of the study.

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**KEYWORDS:** business models; business model innovation; dynamic capabilities; knowledge intensive business services

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## **1 Introduction**

In the past decades, the concept of business model innovation (BMI) has gained an increasing amount of interest in the academic literature, especially in the context of knowledge intensive business services (KIBS) firms (Muller & Zenker, 2001; Savic et al., 2020; Zieba, 2021). Moreover, these firms relying primarily on their expert knowledge and service-based solutions, are turning their focus towards not only to innovating their service offering but also to their entire business models to remain competitive and meet the customers' evolving needs in rapidly changing business environments (Miles et al., 1995). In addition to this, the emphasis on the organization's ability to create, deliver and capture value has become a strategic priority for the firms to remain relevant, and its impact on firm performance has been acknowledged (Teece 2010; Amit & Zott, 2010). Simultaneously, the organisations' ability to adapt according to these changing needs and renew its resource base can offer an interesting lens to understand how these firms innovate their business models in dynamic market conditions.

Despite the acknowledged importance of business model innovation in KIBS firms, there is a limited understanding of how these organisations can systematically innovate their business models when responding to the changing needs. Furthermore, the traditional frameworks are often related to products or manufacturing and may not entirely capture the essence of business model transformation in knowledge intensive businesses, where the assets are tied to human expertise and customer relationships (Teece, 2010; Zott & Amit, 2010). Therefore, it is fruitful to study this unique setting and understand the specific dynamic practices driving business model innovation.

### **1.1 Research gap**

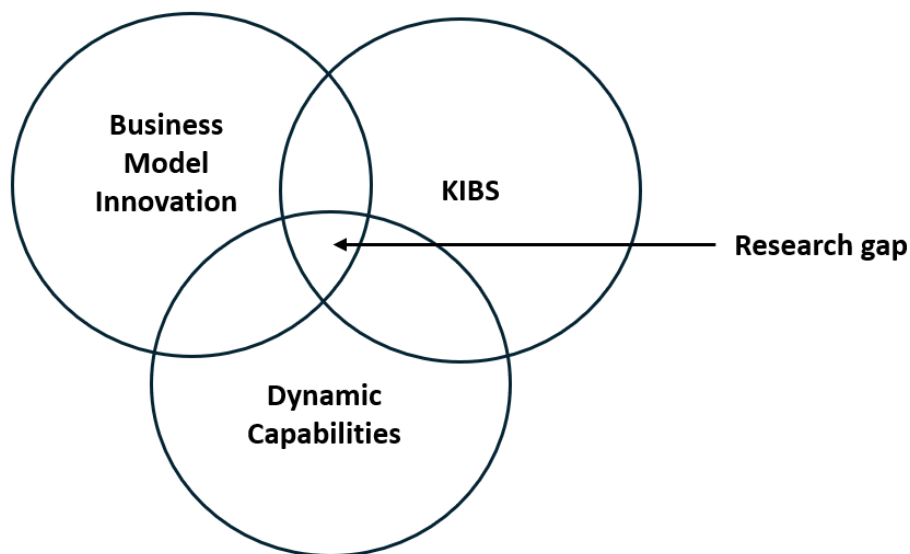
Business model innovation (BMI) has gained recognition as a critical factor for achieving sustainable competitive advantage, particularly in environments characterized by rapid change and complexity. Unlike traditional innovation focusing on product and processes, BMI leads to transforming the ways which companies create, deliver and capture value

(Chesbrough, 2007; Zott et al., 2011). This transformation enables organisations to address emerging needs and adapt their strategies to shifting market demands. Knowledge intensive business services (KIBS) firms, relying on specialized expertise and tailoring the service portfolio according to customer-specific needs are particularly impacted by BMI. The emphasis in KIBS literature has previously been on the role of knowledge and innovation as primary drivers, with studies examining aspects such as innovation types, knowledge absorptive capacity and collaborative knowledge development (Miles et al., 1995; Doloreux & Shearmur, 2010). Given the service-oriented and expertise-dependent nature of KIBS, the ability to innovate business models is essential to maintain resilience and sustain competitiveness (Asikainen, 2015; Santos & Spring, 2015).

The dynamic capability framework provides a valuable framework for understanding how KIBS firms can efficiently implement and sustain BMI. Dynamic capabilities refer to a firm's ability to sense opportunities, seize resources and reconfigure organisational assets in response to external changes (Teece, 2007). In KIBS where agility and adaptability are paramount, dynamic capabilities become essential for firms aiming to transform organisational assets and respond to customer-specific needs rapidly. Previous research has shown that dynamic capabilities enable companies to capitalise on BMI by allowing them to integrate external knowledge, reconfigure internal processes and maintain a flexible organisational structure to ensure alignment with market needs (Mezger, 2014; Kump et al., 2019). This adaptability is particularly important for KIBS, where services are highly specialized, and collaboration with customers is central to value creation (Mousavi et al., 2018). However, this interplay between BMI and dynamic capabilities has largely been studied in the context of larger companies, leaving smaller and medium-sized companies relatively unexplored (Eisenhardt & Martin, 2000; Doz & Kosonen, 2010).

While the dynamic capability framework and BMI have been explored widely, their interaction within KIBS remains scant. Previous research highlights, that dynamic capabilities, through sensing and reconfiguring, directly support BMI by enabling companies to identify opportunities for business model renewal and adapt to them effectively

(Gärtner et al., 2017; Teece, 2018). However, studies that examine how KIBS firms employ these capabilities to sustain BMI are limited, leaving open questions about the specific practices and micro-level activities that enable these firms to adapt continuously. Despite the recognized importance of BMI and dynamic capabilities for enhancing adaptability and competitiveness, there still remains a gap understanding the specific practices and microfoundations that enable KIBS firms to integrate customer-focused adaptability with strategic business model transformations (Eriksson, 2014; Mezger; Teece, 2018). To address this gap, this study investigates how dynamic capabilities drive business model innovation in a KIBS company, focusing on processes such as knowledge integration, collaborative customer engagement and internal resource transformation, which are critical for sustaining competitive advantage in knowledge-intensive markets. The research gap is illustrated in Figure 1.



**Figure 1** Research gap.

## **1.2 Research question and objectives**

This thesis combines the theoretical conceptualisations of Business Model Innovation and Dynamic Capabilities by examining the concepts in a KIBS company context through

a single case study. Furthermore, the purpose of this thesis is to answer to the following research question:

*Which dynamic capability practices drive business model innovation in a KIBS firm?*

To support and guide in answering the research question and establish the area of research, the following research objectives are presented:

1. Describe and define the concept of Business Model (BM) and its components and the process of Business Model Innovation (BMI) through key literature
2. Describe the key characteristics of a KIBS firm
3. Describe and introduce Dynamic Capabilities through relevant literature

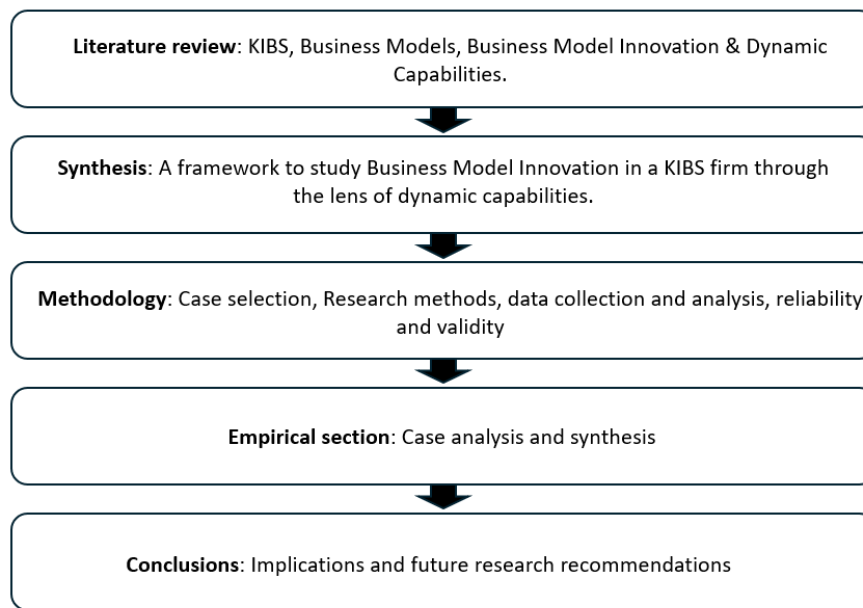
By answering this question and addressing these research objectives, this thesis introduces theoretical contribution to business model innovation literature through the lens of dynamic capabilities in the context of a KIBS firm. Furthermore, by combining empirical data to theory, the framework provides a model to examine the relevant dynamic capability practices driving BMI in a KIBS firm.

### **1.3 Thesis structure**

This thesis is divided into five sections. The introduction represents the background of the topic, continuing with an extensive literature review. The literature review starts with introducing the concepts of Business Models, Business Model Components and Business Model Innovation (BMI), which sets a firm basis for this study. The thesis continues to shed light on these topics from multiple perspectives and research from various scholars. The Business Model Canvas (Osterwalder & Pigneur, 2010) is selected as the framework for illustrating the elements of a Business Model for this study. After a comprehensive outlook on the themes related to Business Models, the thesis introduces the concept of Knowledge Intensive Business Services (KIBS) before continuing to relevant research streams on dynamic capabilities, concluding with the framework by Teece (2007) on

sensing, seizing and reconfiguring capabilities. This framework represents the lens for investigating the dynamic capability practices in the thesis. Finally, the literature review concludes with presenting the theoretic framework to study drivers for Business Model Innovation in a KIBS firm through the lens of dynamic capabilities.

The literature review is followed by the introduction of the methodology of the thesis, where the case selection process is introduced in addition to the description of the research strategy and method. In this section, also the data collection and analysis methods are discussed as well as the evaluation of the reliability and validity of the collected data. The fourth section introduces the findings of the empirical part of the thesis. Furthermore, the case context is analysed in detail including an in-depth depiction of the current business model through three categories adapted from the Business Model Canvas (Osterwalder & Pigneur, 2010): Customer Engagement Practices, Business Infrastructure and Financial Model. Following the case context analysis, the key dynamic capability practices enabling business model innovation in the case context are introduced through four emerged aggregate dimensions: Market Driven Strategic Responsiveness, Customer Centric Innovation, Organisational Agility and Resource Allocation, and Learning and Knowledge Integration. The thesis concludes with the introduction of the theoretical contribution following with managerial implications and suggestions for future research. The limitations of the thesis are also presented. The thesis structure is illustrated in Figure 2.



**Figure 2** Structure of the thesis.

## 2 Literature review

The literature review starts with representing the relevant business model literature. First, different definitions of the business model are introduced, after which the key components of the business model are reviewed, followed by the definition of business model innovation. The second part of the literature review covers dynamic capabilities. To summarize the literature review, the theoretical sections are combined to conclude with a framework to study the dynamic capability practices driving BMI for a KIBS company.

### 2.1 Business models

Business model research is a fairly new domain of research (Osterwalder et al., 2005), and scholars have argued the relationship between strategy and business model (Novak, 2013). The business model as a concept has gained an increasing amount of interest among scholars in the past decades (Schafer et al., 2005). However, despite the wide range of research on business models, there is not an accurate definition for business model among scholars (Lambert & Davidson 2003). Al-Debei and Avison (2010, p. 360) have argued that the reasons why the concept holds so many definitions are;

1. Business model being a relatively new concept,
2. Business models being researched within various fields of research, and
3. Business models being repeatedly linked with business areas, that are relatively new themselves, such as ecommerce.

To illustrate the lack of academic consensus regarding the term, several scholars define business models as systems (Baden-Fuller & Haefliger, 2013) or a conceptual framework (Richardson 2008) of gaining competitive advantage. Furthermore, Richardson (2008) claims that there is a universally accepted definition for business model being solely a depiction of how the company does business, whereas Zott et al. (2011), Teece (2010) and Schafer et al. (2005) claim that scholars hold conflicting views regarding the definition of a business model. In addition to these Yip (2004), Hedman and Kalling (2003) and

Amit and Zott (2001) suggest also, that business models are comprehensive tools for strategy implementation. What is more, Casadesus-Masanell and Ricart (2010) highlight that in addition to business models and strategy, tactics is also a third overlapping concept, which cannot be clearly separated. Morris et al. 2005, on the other hand consider business model purely as the company's economic model. To conclude, Spieth et al., (2014) have been able to depict three different roles for business model research, which are: 1) "explaining the business", 2) "running the business", and 3) "developing the business".

Because the topic of business model is so often seen combining two or more academic fields, it has yet not been identified as a part of one specific academic field or area (Teece, 2010, p. 176), rather than it being viewed from a researcher's own point of view, leading to various outcomes of what a business model is (Shafer et al. 2005, p. 200). Also, as Teece (2010) has pointed out, business models are used in the academia to answer to complex real-life business challenges and is therefore often tailored according to the specific circumstance. Moreover, in addition to the definition of the concept, the word "model" makes the conceptualisation challenging as it can also be seen as an ambiguous concept including various forms of what can be seen included as a model (Doganova & Eyquem-Renault 2009, p. 1568; Baden-Fuller & Haefliger, 2013).

Despite the vagueness around the terminology related to business models, the research field is seen shifting towards theoretical consolidation as Zott et al. (2011) have indicated. Even though Amit & Zott (2001) argued that the value creation process, which can be seen key in defining a business model, cannot be defined with only a single theoretical perspective, the business model includes a cross-theoretical perspective. However, as scholars have been able to formulate tools around business models, for example the Business Model Canvas by Alexander Osterwalder, Zott et al. (2011) have been able to recognize four emerging themes regarding the literature and academic research on business models; the business model as a tool for analysis spanning the boundaries of the company, business model as a way to explain company's business logic, business model

as an explanatory tool for the activities and stakeholders of the company, and finally, business model explaining the value creation and value capture of the company. Also, it is relevant to differentiate the term of business model from strategy, as Chesbrough and Rosenbloom (2002) have pointed out. Firstly, the business model focuses on creating value for the customer, whereas the value capture and sustainability point of view are more emphasized in the strategy literature (Chesbrough & Rosenbloom 2002). Secondly, the business model focuses on the value creation for the business, whereas strategy focuses on creating value for the shareholders. Finally, the business model considers the knowledge on the company's stakeholders heavily limited and strongly biased on the basis of the company's previous success, whereas the strategic approach assumes more thorough analysis and calculation where the company's knowledge is based, with the aspect of reliable information being at hand unlimitedly (Chesbrough & Rosenbloom, 2002).

To summarize, 9 different depictions of the business model are introduced in table 1, including the authors, year of publication and definition for business model. The table summarizes how business model is considered and interpreted from different scholarly perspectives.

**Table 1.** Overview of Business Model definitions.

<b>Author(s)</b>	<b>Definition</b>	<b>Summary</b>
Amit & Zott (2001)	"The content, structure and governance of transactions designed so as to create value through exploitation of business opportunities."	A concept
Chesborough & Rosenblom (2002)	"The business model provides a coherent framework that takes technological characteristics and potentials as inputs and converts them through customers and markets into economic outputs."	A framework for a specific field of business
Morris et al. (2005)	"A business model is a concise representation of how an interrelated set of decision variables in the areas of venture strategy, architecture, and economics are addressed to create sustainable competitive advantage in defined markets. "	A set of decision variables
Osterwalder et al. (2005)	"A business model is a conceptual tool containing a set of objects, concepts and their relationships with the objective to express the business logic of a specific firm. Therefore, we must consider which concepts and relationships allow a simplified description and representation of what value is provided to customers, how this is done and with which financial consequences."	A descriptive tool conceptualisation
Schafer et al. (2005)	"Business models provide a powerful way for executives to analyse and communicate their strategic choices."	A management tool
Richardson (2008)	"Business model is a conceptual framework that helps to link the firm's strategy, or theory of how to compete, to its activities, or execution of the strategy. The business model framework can help to think strategically about the details of the way the firm does business."	A conceptual strategy tool for the company
Teece (2010)	"A business model articulates the logic and provides data and other evidence that demonstrates how a business creates and delivers value to customers. It also outlines the architecture of revenues, costs, and profits associated with the business enterprise delivering that value."	A method to gain sustainable competitive advantage
Zott et al. (2011)	"The core logic of a business model, instead, revolves around a firm's revenues and costs, its value proposition to the customer, and the mechanisms to capture value. Thus conceived, the business model can be a vehicle for innovation as well as a subject of innovation."	A tool for innovation
Baden-Fuller & Haefliger (2013)	"Business models are recipes and represent tools for management. Business models contain theory and assumptions about customer behaviour and agency that may not hold in a specific situation."	A management tool

Despite business model being a fairly new concept in the business literature, researchers have been able to depict several interpretations and definitions for the concept. Since the beginning of the 21<sup>st</sup> century, the concept of business model has evolved from a concept (Amit & Zott, 2001), towards a framework (Chesborough & Rosenblom, 2002). Interestingly, Morris et al. (2005) continued the definition by defining business model as a set of decision variables to create sustainable competitive advantage. Furthermore, both Osterwalder et al. (2005) and Schaefer et al. (2005) brought the perspective of business model being a management tool, where Schaefer et al. described the business model a tool for executives and Osterwalder et al. (2005) defining the business model in a more generic tool, without specifying it solely as a tool for managers. However, Richardson (2008) complemented the perspective of business model being a tool by specifying it as a conceptual framework (Chesborough & Rosenblom 2002) and a strategy for the company, not only the management level.

In contrast to the previous interpretations, Teece (2010) continues the concept approach by Amit & Zott (2001) by describing business model not only as a management or strategy tool, but a method for a company to gain sustainable competitive advantage. Furthermore, by bringing the aspect of data and logic, Teece (2010) offers a more analytic approach to the concept, whereas the previous interpretation and definitions have been more in a conceptual and descriptive level (Amit & Zott, 2001; Chesborough & Rosenblom 2002; Morris et al. 2005; Osterwalder et al., 2005; Schafer et al., 2005; Richardson, 2008). Furthermore, in addition to the analytic and more numerical approach by Teece (2010), Zott et al. (2011) define the business model interrelated to the costs and revenues of the company, value proposition and value capture. What is more, Zott et al. (2011) introduce the concept of innovation and suggest it being central when considering business models and its opportunities a tool for innovation for the company.

Interestingly, Baden-Fuller and Haefliger (2013) take a more vague and descriptive approach in their definition for the business model – referring it as a recipe and a more structured approach to managing a business containing theory and assumptions on

customers. However, unlike previous researchers, Baden Fuller and Haefliger (2013) argue that business models are based on specific theories regarding the behaviour and decision-making process of customers. Thus, these assumptions are necessarily not applicable in every specific situation or market context.

To sum up, despite the manifold definitions of a business model, it could be summarized as a mean how a company delivers value to its customers and more specifically, the value creation logic. In the following chapter, the components, and elements of which the business model is structured, is described more thoroughly. Moreover, the framework of the business model canvas to depict these components, is presented.

### **2.1.1 Business model components**

In addition to the definition of the business model, which includes cross theoretical and multisided perspectives, the research community share different perspectives on the components of the business model. Business model can be seen as the “*design or architecture of the value creation, delivery, and capture mechanisms*” of an organisation (Teece, 2010, p. 172). Furthermore, when discussing about the critical elements of the business model, Johnson et al. (2008) construct in on the basis of four key elements; Customer value proposition (CVP), profit formula, key resources, and key processes. Interestingly, Timmers (1998) base their suggestion of the business model components on detailed case studies and suggest the business model consists of product flow architecture, business actors and roles, actor benefits, revenue sources and marketing strategy. Linder and Cantrell (2001) contribute to the business model literature with their comprehensive input on the basis on 70 CEO interviews, by expanding their set of key business model components with the total of eight elements, including the pricing and revenue model, channel model, organizational form, and value proposition. Similarly, the value proposition is also emphasised in the research of Chesborough and Rosenbaum (2000), Petrovic et al. (2001), Afuah and Tucci (2001), Weill and Vitale (2001), Applegate (2001) and Rayport and Jaworski (2001), but however, not in all business model

component specifications (Horowitz, 1996, Timmers, 1998, Markides, 1999, Donath 1999, Dobusson-Torbay et al. 2001, Amit & Zott, 2001, Alt & Zimmerman, 2001 and Betz, 2002).

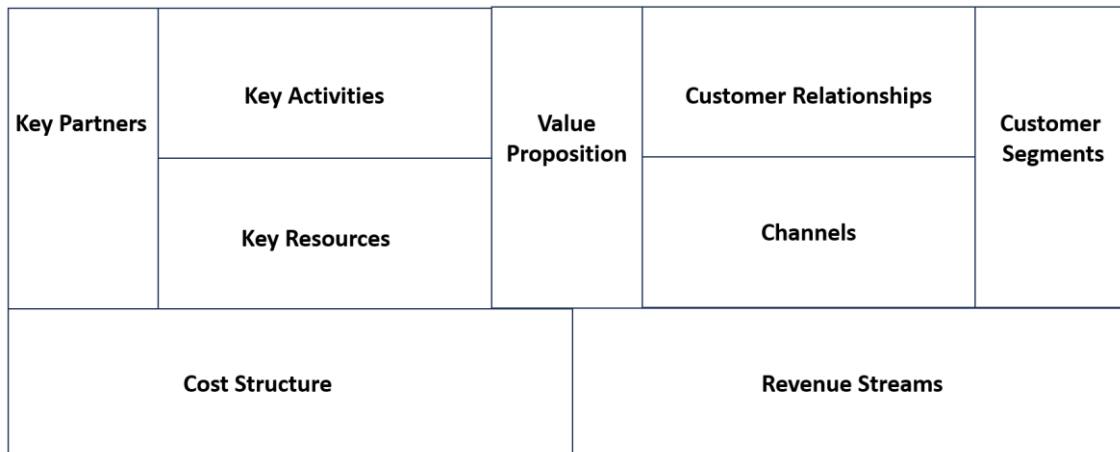
In addition, Osterwalder et al. (2005, p. 10) construct the business model on the basis of four pillars, which include the product, customer interface, infrastructure management and financial aspects. Moreover, these four pillars formulate the core of the business model with components such as value proposition, target customer, distribution channel, relationship, value configuration, core competency, partner network, cost structure and revenue model (Osterwalder et al., 2005). Moreover, in their later work, Osterwalder and Pigneur (2010) have formulated the Business Model Canvas, one of the most widely used frameworks in the corporate environment and academia, resulting from the consensus among business model academics' comprehensive study, regarding the components relevant for a business model (Barquet et al., 2013).

**Table 2** Business model components.

Author(s)	Number of components	Components
Matzler et al. (2013)	4	Product and service logic, value creation logic, profit formula, and marketing and sales logic.
Johnson et al. (2008)	4	Customer value proposition (CVP), profit formula, key resources, and key processes.
Timmers (1998)	5	Product flow architecture, business actors and roles, actor benefits, revenue sources and marketing strategy.
Linder and Cantrell (2001)	8	Pricing model, revenue model, channel model, commerce process model, Internet-enabled commerce relationship, organizational form, and value proposition.
Morris et al., (2005)	6	Factors related to the offering, market factors, internal capability factors, competitive strategy factors, economic factors, personal/investor factors.
Chesbrough & Rosenbaum (2000)	6	Value proposition, target markets, internal value chain, structure, cost structure and profit model, value, network, and competitive strategy.
Afuah & Tucci (2001)	8	Customer value, scope, price, revenue, activities, implementation, capabilities, and sustainability.
Hamel (2001)	4	Core strategy, strategic resources, value network, and customer interface.
Osterwalder & Pigneur (2010)	9	Customer segments, value propositions, channels, customer relationships, revenue streams, key resources, key activities, key partnerships, cost structure.

Evidently, as it can be seen in table 2, the business model research field is not unanimous on which components formulate the building blocks of a business model, and several of the components recognized by different scholars are overlapping and have many similarities. As the Business Model Canvas by Osterwalder and Pigneur (2010) has gained the position as an acknowledged strategic management template for business model development (Spieth et al., 2014, Osterwalder and Pigneur, 2010), it is worth taking a deeper dive into the framework. By answering to questions what, how, who and why, the canvas assists to depict the company's value proposition, how to deliver the value proposition, who are the target customers and key stakeholders related to delivering the value, and how to deliver the value in a profitable manner (Osterwalder & Pigneur, 2010). The nine building blocks of the Business Model Canvas are summarized as follows and illustrated in Figure 3.

- **Value proposition:** **What** are the products and services and the overall view of these to a specific customer segment?
- **Key resources:** **How** and with which assets are required to offer and deliver the products and services?
- **Key activities:** **How** are the key activities by the key resources performed to deliver the products and services?
- **Key partnerships:** **How** are the key activities organised – are some of the key activities performed by external resources?
- **Customer segments:** **Who** are the company’s key customers, are there one or several customer segments?
- **Channels:** **How** are the customers reached, and which channels are used?
- **Customer relationship:** **How** are the customer relationships – more personal or completely automated?
- **Revenue streams:** **How** is revenue created and what is the pricing model?
- **Cost structure:** **What** are the key activities and resources which generate most costs?



**Figure 3** The Business Model Canvas (adapted from Osterwalder & Pigneur, 2010).

The business model canvas (BMC) by Osterwalder and Pigneur (2010) is selected as the framework and tool for business model innovation for this thesis. It applies to the context of BMI in KIBS firms as it is a visual and structured way to analyse the key

components of a business model and offers a holistic way for KIBS firms to innovate across different areas of the business model, ensuring alignment and effective management across different areas. Furthermore, the BMC is a flexible framework and is therefore well-suited for dynamic environments where business models evolve continuously. As KIBS firms operate in rapidly changing environments where technological innovation and shifts in customer needs are common, the BMC offers a tool for rapid visualization and reassessment in this context. Also, the BMC's focus on value proposition aligns with the dynamic capabilities' framework regarding sensing, seizing and reconfiguring opportunities, where also the focus on these capabilities is to sense, seize and create new opportunities to create value and adjust to the changing customer needs and business environment. In addition to examining the internal factors affecting to the business model, the BMC encourages the consideration of external business environment factors, for example through channels, customer relationships and key partnerships as well as internal capabilities through key resources and key activities. To sum up, the BMC offers a coherent tool to investigate how a KIBS firms' external changes can be aligned with internal capabilities to maintain competitive advantage, also from a dynamic capability perspective.

### **2.1.2 Business model innovation**

As it has been acknowledged with the term business model, the academic field lacks also a unanimous view regarding business model innovation (BMI) (Girotra & Netessine, 2013). However, due to business model innovation, companies across the world have been able to transform entire industries and generate new revenue streams worth billions of dollars (Johnson et al., 2008). What is more, it is important to separate business model innovation from product and service innovation. Surveys made in 2005 and 2008 show that over 50% of company CEOs believe that in the future they will gain competitive advantage through business model innovation rather than innovating new products or services (Johnson et al., 2008; Foss & Saebi, 2017). Thus, it can be stated that BMI aims to gain strategic advantage (Amit & Zott, 2015) through value creation. Also, the importance of BMI has been recognised in the academia in the past years (Johnson et

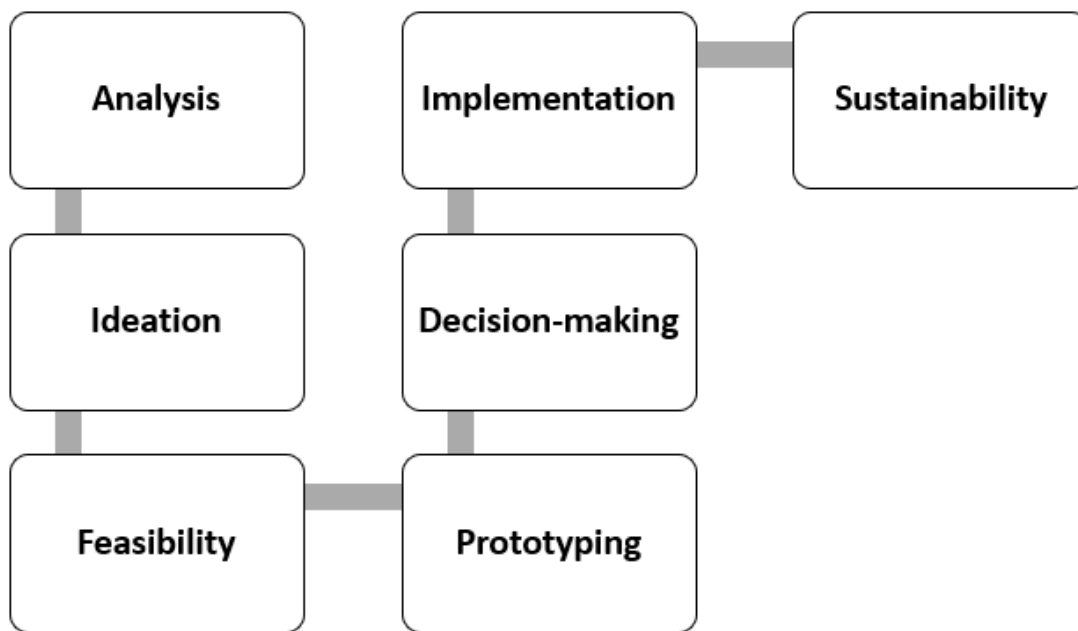
al., 2008). Surprisingly, compared to the BM research, the research on BMI has been scarce (Foss & Saebi, 2017) and started only until the beginning of the 2000's. Since then, four different research viewpoints have emerged in the BMI literature with the research focus on BMI as a concept (Teece, 2010; Amit & Zott, 2012), BMI as a process (Berglund & Sandström, 2013; Girotra & Netessine, 2014; Bonhnsack et al., 2014), BMI as an outcome (Abdelkafi et al., (2013); Wirtz et al. (2010); Sánchez and Ricart, (2010) or BMI resulting from operational excellence (Foss & Saebi, 2017). These four different research streams are presented below in table 3.

**Table 3** Business Model Innovation research.

Research stream	Summary	Author(s)
BMI as a concept	BMI literature focus on defining and classifying the theory.	Teece (2010); Amit & Zott, (2012)
BMI as a process	BMI explained as a change process requiring the capabilities, organisational processes, experimentation and learning.	Berglund & Sandström (2013); Girotra & Netessine, (2014); Bonhnsack et al. (2014)
BMI as an outcome	BMI emerging in a specific context resulting from an organisational change process.	Abdelkafi et al. (2013); Wirtz et al. (2010); Sánchez and Ricart (2010)
BMI resulting from operational excellence	BMI as a result from process or financial performance improvements.	Zott and Amit (2007); Giesen et al. (2007); Aspara et al. (2010); Wei et al. (2014)

In addition to understanding the antecedents of the BMI literature, it is beneficial to identify the phases and activities related to the BMI process. Wirtz & Daiser (2018) identify seven phases in the BMI process: analysis, ideation, feasibility, prototyping, decision-making, implementation, and sustainability. The BMI process is illustrated in Figure 4.

The BMI process begins with an analysis phase and includes activities such as the analysis of the current business model, products, and services as well as the analysis of the target groups, customers and the competitive environment (Linder & Cantrell, 2000; Pramatari et al., 2001; Chesbrough, 2007). The analysis phase is followed by the ideation phase. Determining the BMI, generating customer insights, creating customer scenarios are the key activities in the ideation phase (Lindgardt et al., 2009; Wirtz, 2011; Frankenberg et al., 2013). The feasibility phase is the final phase before continuing to the prototyping phase. This phase includes testing the assumptions of the business environment, analysing the interdependencies, and finally analysing the business model alignment from the internal or external perspective (Voelpel et al., 2004; Osterwalder et al., 2010; Amit & Zott, 2010). The prototyping phase includes the analysis and creation of different BMI design options and concepts and refining these (Linder & Cantrell, 2000; Osterwalder et al., 2010; Wirtz, 2011). When the BMI process continues to the decision-making phase, the BMI design alternatives are evaluated before selecting the final BMI design, components, and testing (Chesbrough, 2007; Osterwalder et al., 2010; Wirtz, 2011). After validating the selected BMI design, the process continues with developing the implementation plan including the BMI strategy and following and putting the chosen plan into execution (Deloitte, 2002; Johnson et al., 2008; Pynnönen et al., 2012). Finally, the sustainability of the process is ensured by monitoring and controlling the BMI and making adaptations, accordingly, ensuring organisational learning and long-term competitive advantage by controlling the value proposition and value system (Lindgardt et al., 2009; Sosna et al., 2010; Teece, 2010).



**Figure 4** Business Model Innovation process (adapted from Wirtz & Daiser, 2018).

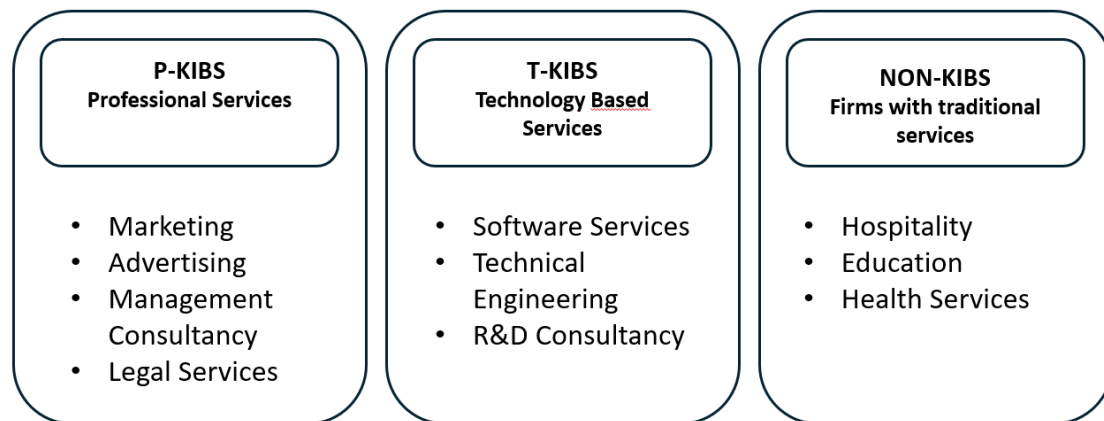
To sum up, the BMI process provides a blueprint for business model innovation initiatives, and in some cases the different phases of the process might include overlapping activities and require alterations depending on the specific BMI initiative (Wirtz & Daiser, 2018). Furthermore, implementing the BMI process might lead to emphasizing different phases in different business contexts. However, it provides a management tool for companies to cover the fundamental phases of BMI (Wirtz & Daiser, 2018).

## **2.2 Knowledge Intensive Business Services (KIBS)**

The emergence and development of knowledge intensive business services (KIBS) in the past years can be considered one of the most important factors regarding innovation and economic evolution (Muller & Zenker, 2001). Furthermore, the emergence of KIBS has contributed to the fact that the intensity of knowledge is increasing across all economic sectors (Miles et al., 1995). KIBS firms, as well as all service firms, differ from one another and there is no unanimous definition for these (Lee & Miozzo, 2019). However, Miles et al. (1995) characterise KIBS firms being highly dependent on professional knowledge and all KIBS firms are seen as enablers of some sort to their customers in the form of

delivering services (Doloreux & Shearmur, 2010). Moreover, KIBS firms highly depend on professionals and specialists of their specific field, and either provide products which are the primary source of information to their customers or use their specific knowledge to produce services and participate this way in knowledge generation as a generator of intermediate inputs to their customers (Miles et al., 1995). Other businesses, including the public sector and entrepreneurs most commonly create the customer basis for KIBS firms (Miles et al., 1995).

KIBS firms can be divided into two categories: professional KIBS firms (P-KIBS) and technology based KIBS (T-KIBS) (Miles et al., 1995). Furthermore, Miles et al. (1995) also exclude certain firms from the KIBS domain, which are categorized as non-KIBS firms (Miles et al., 1995). Examples of P-KIBS firm sectors include marketing and advertising, management consultancy, accounting and bookkeeping and legal services. P-KIBS firms' expertise is based on their high level of knowledge and expertise on administrative systems and social affairs (Doloreux & Shearmur, 2010). T-KIBS firms operate in sectors such as software services, technical engineering, R&D consultancy, and training in new technologies. Furthermore, these firms' service offering is highly concentrated on technological know-how and sharing technology related information (Doloreux & Shearmur, 2010). However, the categorisation is not exhaustive, because firms can fall under both KIBS categories sharing features from both sections such as building services, where the more traditional services such as architectural services are linked to P-KIBS whereas building energy management systems with highly specialised technological expertise belong to T-KIBS (Miles et al., 1995). Non-KIBS firms operate in sectors such as hospitality, education, health services and public administration (Miles et al., 1995). Particularly, non-KIBS firms operate in more traditional fields with existing service delivery processes and routines (Miles et al., 1995; Doloreux & Shearmur, 2010). The KIBS categories are illustrated in Figure 5.



**Figure 5** KIBS categories (adapted from Miles et al., 1995).

KIBS firms differ from traditional service providers and are central in developing new technologies (Miles et al., 1995). Furthermore, for example in the context of estate management, KIBS firms help their customers in carrying the expertise of a specific technological understanding, allowing their customers to concentrate on their core business (Miles et al., 1995). Therefore, **knowledge** can be seen one of the most critical determinants of a KIBS firm. Zieba et al., (2017) provide a dualistic approach to the nature of innovation-related knowledge creation and increase in KIBS firms; either active or passive behaviour. Furthermore, these two types of innovation knowledge searching can direct towards internal or external, active, or passive behaviour (Zieba et al., 2017). KIBS firms looking for innovation knowledge actively try to forecast customer needs on their own, where passive KIBS firms utilize innovation knowledge only brought by the central stakeholders (Zieba et al., 2017). Universities and other research institutions are a focal source for creating new knowledge and innovation, and the role of KIBS in developing innovations and transferring knowledge with these institutions is created through cooperation and collaboration (Fernandes & Ferreira, 2013). Doloreux & Shearmur (2010) claim that the foundation of knowledge in KIBS firms is generated through the process of information sharing internally and externally. Factors impacting positively to a KIBS firm's innovation performance and competitiveness include knowledge supply, utilization of created and internalized knowledge and absorptive capacity as well as the capability of identifying and transforming external knowledge into internal knowledge

sources (Tseng et al. 2011). Knowledge in KIBS firms is centrally dependent on the firms' individual professionals in their own fields of expertise (Doloreux & Shearmur, 2010).

**Innovation** is another key determinant for KIBS firms, however innovation by KIBS firms can be difficult to analyse and measure due to the multisided simultaneous activities such as new ways of producing and delivering services, new forms of client interaction and quality and control assurance (den Hertog, 2000). KIBS firms are both knowledge intermediaries and knowledge users (Doloreux & Shearmur, 2010). Innovations are related either to product innovations or process innovations (Cabigiosu & Campagnolo, 2018) and arise from the firms' capability to adapt external information and utilize and collaborate according to the received information (Shearmur, 2012). Furthermore, the relationship between KIBS firms and innovation is dependent on the role of the KIBS firm and can be seen as one KIBS being a source of innovation or KIBS being a carrier of innovation (Doloreux & Shearmur, 2010). In addition to these, KIBS firms can also incorporate old and new knowledge in generating innovation and contribute to their clients' innovation ability and performance (Doloreux & Shearmur, 2010). Moreover, innovation can occur in KIBS firms through generating intangible and tacit knowledge as well as resulting from own innovation either through product, service, or internal organizational development (Doloreux & Shearmur 2010). Therefore, KIBS can act as sub-contractors, suppliers, or clients for innovation (Doloreux & Shearmur, 2010). Also, the innovation process in KIBS firms differ from the more traditional ways of innovation in terms of the differences in lead times, supply and demand factors, co-development and interaction with clients, process innovations, the factors related to organizational change, appropriability and intellectual property as well as standardisation (Miles et al., 1995).

**Collaboration** is one of the key prerequisites for innovation (Chesbrough, 2011), and especially in KIBS firms (Miles, 2005). Furthermore, according to Mina et al. (2014) innovation collaboration increases with R&D intensity and human capital intensity within services businesses. According to Fernandes & Ferreira (2013) collaboration in KIBS innovations has the potential to impact the competitive standing of different areas, and as

Shearmur & Doloreux (2015) claim, KIBS firms might locate in geographical clusters. Furthermore, universities are seen as key in knowledge development, promoting scientific innovation and collaboration with other firms from various industry sectors (Hidalgo & Herrera, 2020). Interestingly, a positive correlation between universities and P-KIBS innovations has been found, highlighting the significance of tacit knowledge exchange between universities and KIBS firms (Doloreux & Frigon, 2020).

Both open innovation and co-creation are key when creating innovations (Hidalgo & Herrera, 2020). **Co-creation** can therefore also be seen one of the key determinants for KIBS firms where the staff, customers and other external stakeholders are engaged in the process (Hidalgo & Herrera, 2020). Furthermore, as claimed by Grönroos & Voima (2013), in the value co-creation process, the customer and service provider are both vital actors, and co-creation can be assessed either through an organisational or cooperative perspective (Hidalgo & Herreira, 2020). KIBS firms' ability to adopt co-creation affects directly in creating a sustainable competitive position and the possibility to create remarkable innovations (Santos-Vijande et al., 2013), and the processes related to value co-creation can be seen dynamic yet complex (Stucky et al., 2011). Also, the firms' employees, who are experts in their respective fields, affect greatly to the level of innovation through in-depth insight in supporting the creation of service processes (Santos-Vijande et al., 2013). Customer co-creation is a crucial practice, especially within P-KIBS firms. (Cabigiosu & Campagnolo, 2018). However, collaborating with external stakeholders for co-creation is typical for both P-KIBS and T-KIBS firms (Cabigiosu & Campagnolo, 2018). Customers can be involved in co-creation in all phases of the development process, with several different engagement tools for the KIBS firms to utilize, such as interviews, customer surveys or discussion groups (Santos-Vijande et al., 2013). To sum up, value co-creation also has strategic importance, as it does not only stem from organizing resources, but requires understanding within the overarching interests and identified benefits of involved stakeholders (Lessard & Yu, 2013).

**Table 4** KIBS Elements.

<b>KIBS element</b>	<b>Summary</b>	<b>Authors</b>
Knowledge	Active and passive approaches affect the ability to acquire innovation related knowledge. Knowledge exchange increases through collaboration with research institutions. Internal processes and individual expertise drive knowledge creation and utilization.	Miles et al. (1995); Zieba et al. (2017); Doloreux & Shearmur (2010); Tseng et al. (2011)
Innovation	Measuring and analysing innovation in KIBS is challenging due to multifaceted activities such as service delivery and client interactions. KIBS act as intermediaries and users of knowledge engaging in product and process innovation. KIBS contribute innovation by generating old and new knowledge, serving various roles in the innovation ecosystem.	den Hertog (2000); Doloreux & Shearmur (2010); Cabigiosu & Campagnolo (2018); Doloreux & Shearmur (2010)
Collaboration	Collaboration emerges as a critical driver in KIBS firms. Collaborative efforts affect to regional competitiveness and drive geographical clustering for KIBS firms. Universities play a crucial role in fostering knowledge development and scientific innovation between KIBS firms and the academia.	Chesbrough (2011); Miles (2005); Fernandes & Ferreira (2013); Shearmur & Doloreux (2015); Doloreux & Frigon, 2020)
Co-creation	Open innovation and co-creation central in the innovation process for KIBS firms where staff, customers and external stakeholders are actively engaged. Adoption of co-creation practices influences directly to competitive positioning of a KIBS firm. Collaboration with external stakeholders important both in P-KIBS and T-KIBS.	Hidalgo & Herreira (2020); Grönroos & Voima (2013); Santos-Vijande (2013); Stucky et al. (2011); Cabigiosu & Campagnolo (2018); Lessard & Yu (2013)

### 2.3 Dynamic capabilities

Capabilities are acknowledged key in the strategic management literature, and especially, in the relationship and nature between change and competitiveness of firms (Teece et al., 1997; Helfat et al., 2007). Furthermore, capabilities can be seen as a firm's ability to deploy resources (Amit & Schoemaker, 1993) and can be divided into operational capabilities and dynamic capabilities (Teece et al., 1997; Helfat & Peteraf, 2015). Moreover, operational capabilities can be seen as fundamental daily operations, such as customer segments and production lines (Schilke et al., 2018) or market and technical capabilities (Danneels, 2002). The dynamic capabilities framework on the other hand, is constructed upon the sources of value creation and more specifically, describe the firm's ability to integrate, build and reconfigure competences in rapidly exchanging environments (Teece et al., 1997) and can also be seen as processes or routines (Eisenhardt & Martin, 2000; Barreto, 2010). The research field regarding dynamic capabilities has increased significantly in the past years (Barreto, 2010; Eriksson, 2014).

The dynamic capability theory stems from the resource-based view (RBV), where the firm's competitive advantage can be assessed by evaluating the value, rarity, imitability and organisation of the resources and capabilities (Barney 1991). Following the RBV literature, dynamic capabilities can be considered as an extension of the RBV, where it determines the pace of change and delivers a more dynamic description of how the firm can create sustained competitive advantage in a longer period of time, when the RBV offers a more static description of the firm's resources (Teece et al., 1997). However, the academia does not share a unanimous conceptualization on dynamic capabilities, and thus, there remains a divided understanding of the concept (Barreto, 2010). Furthermore, the vagueness of the context, while avoiding a too descriptive definition creates a challenge for the description of the term (Barreto, 2010). A selection describing the dynamic capabilities according to different scholars is presented in Table 5.

**Table 5** Overview of the Dynamic capabilities research.

<b>Research stream</b>	<b>Author(s)</b>
Dynamic capabilities as <b>a mean to integrate, build, and reconfigure competences to create value</b> in rapidly changing environments	Teece et al. (1997)
Dynamic capabilities as (strategic) <b>organisational processes and routines</b>	Eisenhardt & Martin (2000); Barreto, 2010)
Dynamic capabilities as the firm's <b>ability to intentionally create, extend of modify the resource base</b>	Helfat et al. (2007)
Dynamic capabilities as <b>universal knowledge related processes</b>	Eriksson (2014)
Dynamic capabilities as the <b>managers' ability to establish new solutions</b> according to changing market needs	Macpherson et al. (2004)
Dynamic capabilities as <b>microfoundations: sensing, seizing and reconfiguring capabilities</b>	Teece (2007)

According to Helfat et al. (2007), dynamic capabilities define how firms emerge, develop, grow, change, decline and rejuvenate over time. Furthermore, dynamic capabilities describe a firm's ability to intentionally create, extend of modify the firms resource base (Helfat et al., 2007). The rapidly changing market circumstances are recognised important in defining the term by both Teece et al. (1997) and Helfat (1997). Eisenhardt and Martin (2000) describe dynamic capabilities as the firm's processes that integrate, reconfigure, gain, and release resources for answering to changes in the markets or create change. Furthermore, these capabilities can be described as organisational or strategic routines that are used to gain new resource configurations to changing market circumstances (Eisenhardt & Martin, 2000). Griffith and Harvey (2001) continue with the focus on resources, as they define dynamic capabilities as the creation of inimitable combinations of resources that create competitive advantage. Zollo & Winter (2002) consider a firm's dynamic capability as a collective activity, where the firm adjusts systemically their operating routines in a stable pattern to achieve operational effectiveness. However, unlike Zollo & Winter (2002), Macpherson et al. (2004) consider dynamic capabilities as the manager's ability to establish new solutions to changing market environments, and

not a firm-wide activity as it has been explained by several other scholars. A more recent view from Eriksson (2014) explains dynamic capabilities as universal knowledge related processes involving knowledge gathering, application of the gathered knowledge and restructuring of existing knowledge, highlighting the importance of knowledge and knowledge management when considering dynamic capabilities. Teece (2007) defines dynamic capabilities as microfoundations; dynamic capabilities are skills, processes, organizational systems, or decision-making protocols which form the structure for firm level sensing, seizing and reconfiguring capabilities. In addition to this Helfat & Winter (2011) emphasize the characteristics of dynamic capabilities which differentiate them from ordinary capabilities in a sense that dynamic capabilities must be scalable to enable change in a wider context. Furthermore, dynamic capabilities are systematic patterns of collective activities to gain operative effectiveness (Zollo & Winter, 2002).

As explained previously, the dynamic capability framework lacks a unanimous concept in the academic field. However, as it is a paramount subject of this thesis, Teece's (2007) concept of sensing, seizing, and reconfiguring creates a solid and clear setup to utilize as a part of the theoretic framework. KIBS firms rely heavily on professional knowledge and expertise, and the competitive environment for KIBS firms tends to change rapidly. Analysing the dynamic capabilities through the lens provided by Teece (2007) where the emphasis for value creation depends on the firms' adaptability to changing environments through management of resources, capabilities, and knowledge, integrates the concept of dynamic capabilities in a logical manner to KIBS. Furthermore, the emphasis in the framework by Teece (2007) emphasises intangible assets such as knowledge, processes, and skills, which is particularly useful when creating a link between firm's capabilities and the operational focus of KIBS firms. The aspect of value creation in sensing, seizing and reconfiguring capabilities on the other hand, helps in understanding how KIBS firms can navigate in unpredictable markets to sustain their competitive advantage, and offer also a structured approach to evaluate and enhance the chosen strategy and business model and align these with internal capabilities and external market conditions. The

subcategories of, sensing, seizing and reconfiguring capabilities are presented in the following subsections.

### **2.3.1 Microfoundations of Dynamic capabilities**

According to Teece (2007) dynamic capabilities can be seen as microfoundations characterized as skills or processes, organizational systems, decision-making protocols, and disciplines that shape the foundation for firm level sensing, seizing and reconfiguring capabilities. Furthermore, these three elements reflect the value creation process of a firm (Ambrosini & Bowman, 2009) and can be characterized as either distinct firm-specific processes or processes related to knowledge (Eriksson, 2014). Monteaegre (2002) supports this view by describing the dynamic capabilities emphasizing the adaptation, integration and reconfiguration internal and external organizational skills, resources and competencies in a shifting environment. Thus, it can be concluded that dynamic capabilities, in the form of sensing, seizing and reconfiguring capabilities also affect to firm performance (Helfat & Peteraf, 2015) and support firm evolution and growth in the markets (Woldesenbet et al., 2012).

**Sensing capabilities** reflect the process of detecting and identifying opportunities and threats in the market and involves other activities such a scanning, creation and learning through knowledge accumulation (Teece, 2007) and are built through a process of entrepreneurial activities, where the key resources, skills and learning processes are selected (Zahra et al., 2006). Thus, the importance of knowledge accumulation is crucial, as it acts as a fundamental basis for renewal for the firm and formulates the basis for the dynamic capabilities of the firm (Eriksson, 2014). Furthermore, knowledge accumulates from internal and external sources and the process of sensing is connected to intensive inputs to market search including knowledge accumulation of customers, competitors, and the competitive environment (Augier & Teece, 2009) and requires significant investments to research activities and understanding the dynamic of the market such as customer needs and competition (Teece, 2007). The sensing capabilities can be seen to be dependent on the individuals' managerial cognition and creative capabilities (Adner &

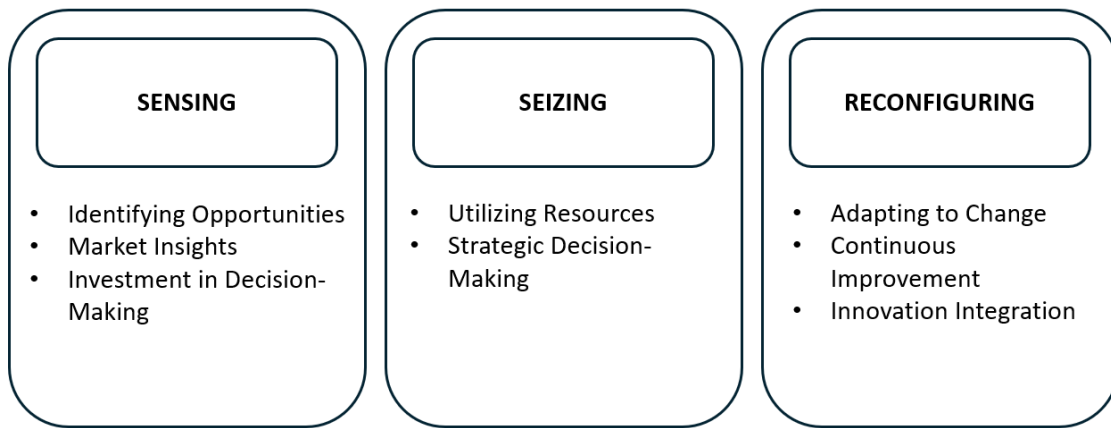
Helfat, 2015; Teece, 2007). Sensing capabilities are processes for utilizing and managing the firm's R&D processes and the firm's creative and analytical skills are emphasized in the sensing capabilities (Teece et al., 1997; Zollo & Winter, 2002; Teece, 2007). Nelson & Winter (1982) also underline the importance of active scanning of the competitive environment for identifying and creating new opportunities. Interestingly, Ahnsan & Fernhaber (2019) claim that the sensing and seizing capabilities lead to organisational transformation, which improve the overall knowledge on the firm and dynamic capabilities development. In addition to accumulating knowledge inside the firm to enhance sensing capabilities, the importance of other organizational processes, such as research and development cannot be underlined, as knowledge itself does not transform to sensed opportunities as it requires the firms' ability to identify, sense and shape new development opportunities (Teece, 2007). A firm's sensing capability depends on the organisational level to sense and create opportunities, however, not all companies have similar opportunities to grasp new opportunities (Teece, 2007). To conclude, the sensing capabilities cover the organisational and individual level capacities, processes, and systems to grasp new opportunities (Teece, 2007).

**Seizing capabilities** describe the firm's ability to capitalize and utilise the sensed business opportunity (Teece, 2007). The seizing capabilities include also the aspect of acquiring relevant resources, if the company does not have the needed resources to move towards from sensing the new business opportunity towards seizing it, and this is often seen as a responsibility of the management level as it often includes a set of investment decisions (Helfat et al., 2007). Moreover, the seizing capabilities are required for maintaining and developing the firm's key assets and competences also for strategic alignment and responding to the changing market needs (Teece, 2007). Therefore, the seizing capabilities also relate to decisions on the firm's business models in the form of evaluating and readjusting and for example the activities and resources when needed for creating and capturing customer value. The firms' structure and assets form a critical basis for the successful implementation of the firm's seizing capabilities (Teece, 2013). Seizing capabilities include the definition of customer solutions and business models, company

boundaries and competitive environment, and most importantly, in fast changing environments, the rapid market entrance capabilities and resource management (Teece, 2007). What is more, establishing structures and processes around unbiased decision-making is vital (Teece, 2007). The seizing capabilities can be described as the firm's ability to realize value propositions and to form ecosystem partnerships (Linde et al., 2021). However, the seizing capabilities might not always lead to reconfiguration but lead to the creation of new paths and resources (Helfat & Peteraf, 2009). Failing to seize sensed opportunities can depend on the firms' ability to eliminate the dependency of previous decisions or processes and resistance to change, especially in established firms and therefore, a formal decision-making protocol is key (Teece, 2007). Also, the emphasis on path-dependencies can lead to continuous unproductive investments if the dependency to existing technologies is too firm (Hodgkinson & Healey, 2001). To sum up, seizing capabilities depict the firm's ability to implement new opportunities including the organisational structures and processes to illustrate the value proposition, decision making processes, governance framework and customer engagement processes (Teece, 2007).

**Reconfiguring capabilities** are an essential element regarding dynamic capabilities and play an important when the firm creates, extends and modifies the resource base according to market changes to ensure growth (Helfat et al., 2007; Teece, 2007). Furthermore, the reconfiguring capabilities refer to the enhancements made to the firm's current tangible and intangible assets, such as knowledge, to ensure alignment with organizational structures that reinforce strategic objectives (Teece, 2007). In addition to this, to gain organizational rejuvenation and successful deployment of dynamic capabilities, the importance of effective resource management needs to be emphasized (Danneels, 2011). Examples include procedures for achieving decentralization, co-specialization, knowledge management, and procedures for implementing relevant mechanisms for regulating organisational operations (Teece, 2007). However, according to Zollo & Winter, (2002) dynamic capabilities are integrated in the firm processes altering the routines for gaining effectiveness and stems from previous experiences, knowledge articulation and codification. Reconfiguring capabilities require a de-centralized decision-making

protocol, where a larger group of firm employees are responsible for the decision-making protocol, where also new opportunities and threats are more efficiently detected (Teece, 2007). In a highly centralized firm, the ability of the firm to respond to new customer innovations and technologies is not as effective, but however, in order for the firm to maintain a clear structure and capture potential economies of scale, different departments should not operate with complete independence either (Teece, 2007). Furthermore, the dynamic capabilities build on detailed strategic and organization-wide processes (Eisenhardt & Martin, 2000). Interestingly, according to Mills et al. (2003), the reconfiguring capabilities, including continuous change, is vital only in industries driven by rapid technological change. Also, a study by Rindova & Kotha (2001) on elements leading to competitive advantage shows that by renewing and shifting the competitive circumstances, the firm may gain competitive advantage, and the transformation process lies in the firms' dynamic capabilities. Furthermore, as firms grow, they need to actively adopt practices that support decentralization to maintain adaptability and responsiveness (Teece, 2007), and dynamic capabilities must include a pattern, as they are used intentionally and need to be repeatable (Ambrosini & Bowman, 2009). To conclude, reconfiguring capabilities depict the firms' mechanisms to consistently aligning and re-adjusting both tangible and intangible resources, such as process innovation, adopting new technologies and implementing best practices to remain competitive in the markets and fostering a culture of innovation and knowledge sharing for performance improvement (Teece, 2007). Furthermore, the firm's ability to reconfigure can also rely on external competences through strategic alliances and partnerships, which can enable access to complementary resources and expertise to pursuing new opportunities (Teece, 2007). A summary of the microfoundations of dynamic capabilities is depicted in figure 6.



**Figure 6** Microfoundations of Dynamic capabilities categories (Teece, 2007).

## **2.4 Synthesis – Business Model Innovation in a KIBS firm from a Dynamic capability perspective**

This section introduces the synthesis on Business Models, Business Model Innovation (BMI), Knowledge Intensive Business Services (KIBS) and Dynamic Capabilities on the basis of the previous discussion in the literature review. Furthermore, the aim of this thesis is to provide a strong theoretical framework to illustrate in the empirical section with which processes and procedures of dynamic capabilities do KIBS firms use for BMI, and also, pinpoint specific dynamic capabilities which are crucial for a successful implementation of BMI.

KIBS operates as the fundamental basis for this thesis as the case company can be characterized as a KIBS firm. Knowledge Intensive Business Services (KIBS) firms, operate oftentimes in fields where knowledge, and innovation are at the core of creating sustaining competitive advantage, such as legal services, marketing, and software services (Miles et al., 1995). Furthermore, in addition to innovation and knowledge, also collaboration and co-creation are the key elements in a KIBS firm. Business model research, on the other hand, is a relatively new field of research, and has attracted increasing interest in different academic fields, and especially its relation to strategy (Lambert & Davidson, 2003; Al-Debei & Avison, 2010). The concept is multifaceted, and definitions vary from systems (Baden-Fuller & Haefliger, 2013) to conceptual frameworks to gain competitive

advantage (Richardson, 2008). The concept of business model is often applied to explain and address a specific real-life business challenges and procedures. The research on business models has revealed diverse perspectives regarding the essential components of a business model. According to Johnson et al. (2010) a business model is built upon customer value proposition, profit formula, key resources, and key processes, whereas Chesborough & Rosenbaum (2000) rely in their business model framework on the following elements: value proposition, target markets, internal value chain, structure, cost structure and profit model, value, network, and competitive strategy. The frameworks for defining business models vary significantly, from describing the key elements to a more complex framework. However, the Business Model Canvas (BMC) by Osterwalder and Pigneur (2010) was chosen as the framework to be utilized in this thesis as it offers a structured and a holistic view of a business covering all key areas. As KIBS firms' value creation and delivery are heavily dependent on the knowledge-based services they offer, the BMC's emphasis on value proposition, customer relationships and channels are relevant as they allow KIBS firms to clearly articulate their value creation methods to specific customer segments and the key processes related to it, through the BMC. The categories in the theoretic framework covering the BMC are grouped as Customer Engagement, Business Infrastructure and Financial Model.

Also, as KIBS firms often operate in business environments characterized by rapid technological innovations and changing customer needs (Miles et al., 1995), the BMC's modular nature allows the firms to revisit and evaluate each segment in their business model as external conditions change. Also, innovation is core in KIBS firms as well as in the dynamic capabilities framework, applying the BMC helps facilitating an integrated approach to managing change and encouraging innovation, and therefore forms a central link to also managing dynamic capabilities in a KIBS firm.

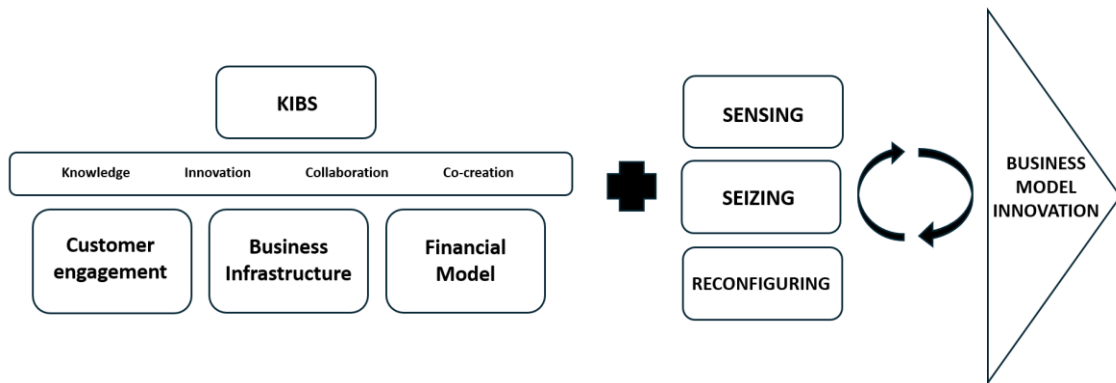
The framework utilised in this thesis for dynamic capabilities relies upon to the framework provided by Teece (2007) presenting the dynamic capabilities through sensing, seizing and reconfiguring capabilities. Furthermore, the concept has also been heavily

utilized in KIBS industries related to technology (Barreto, 2010), highlighting the relevance of the framework in environments, where continuous innovation and adjustments are key to success. Innovation and knowledge-management, collaboration, and co-creation, characterizing KIBS firms, are also fundamental elements characterizing dynamic capabilities. The research on dynamic capabilities focuses mainly on the strategic processes that firms utilize to adapt to changing environments, to ensure an effective way to align resources and operational systems to maintain competitive advantage (Teece, 2007). The sensing capabilities are crucial to KIBS firms, as by leveraging their domain of expertise with close interactions with their customers, KIBS firms are able to gain sustaining competitive advantage to the firm directly or to customers through identifying opportunities. The seizing capabilities come into play when the firm resources are utilized to grasp new opportunities (Teece, 2007), through developing new service offerings, or more effective solution deliveries to customers through concrete actions. Not only do KIBS firms adapt to change in their operative environment but in order to stay competitive, they need to reconfigure their resources and capabilities (Teece, 2007).

A universal definition for Business Model Innovation (BMI) lacks in the academia (Girotra & Netessine, 2013). However, as stated by Johnson et al. (2008), BMI, which differs from product and service innovation, has enabled firms worldwide to transform industries and create new revenue streams. BMI can be seen as a concept (Teece, 2010; Amit & Zott, 2012), as a process (Girotra & Netessine, 2014), as an outcome (Abdelkafi et al., 2013; Wirtz et al., 2010), or as a result from operational excellence (Zott & Amit, 2007). At the core of BMI is however the firms' ability to create value to its customers and reach sustaining competitive advantage compared to competitors. The dynamic capabilities help firms to sense and shape opportunities and threats in the environment, including the recognition of aspects related to customer engagement factors. Also, the business infrastructure and financial model critically shape the BMI by providing the necessary technological and operational resources to enable the exploration and implementation of new and innovative business models. The capability-driven approach, in the context of KIBS firms, where knowledge and innovation are key, supports the investigation of

BMI through the dynamic capability perspective, as it offers a robust foundation to concentrate on creating and reconfiguring a sustainable business model in fast changing environments, where also changes to the business model need to be made.

The KIBS and dynamic capabilities literature are combined in figure 7. The figure illustrates the four key characteristics of a KIBS firm, and the summary of the BMC adapted from Osterwalder & Pigneur (2010) divided into three categories. The dynamic capabilities theory by Teece (2007) is the lens through which the business model innovation process and elements in a KIBS firm is viewed.



**Figure 7** A Model to study the drivers for Business Model Innovation in a KIBS firm through the lens of dynamic capabilities.

### **3 Methodology**

This section introduces the methodology used in the thesis. The research strategy and method are presented first, followed by the selection and introduction of the case company. Following these, the data collection and data analysis methods are presented concluding with the evaluation of the reliability and validity of the thesis.

#### **3.1 Research strategy and method**

The most fundamental aspect when choosing a research strategy is to ensure it effectively answers to the specific questions needed to achieve the research objectives (Saunders et al., 2007; Yin, 2018). The research topic, questions and objectives guide the decision-making process for methodological decisions, where the research approach should not be a predetermined choice (Silverman 2009, p. 10). The three traditional research strategies are 1) experimental research, 2) survey and 3) case study (Hirsjärvi et al., 1997, p. 125). A case study is an empirical study where through observations, experimentations or experiments data is gathered to answer limited research questions (Hirsjärvi et al., 1997, p. 126). A case study provides a solid ground for evaluating complex social phenomena and illuminate real-world events by exploring past or present issues and their impacts to understand these phenomena (Yin, 2018). Furthermore, a case study seeks to answer to questions such as “why” and “how” aiming to shed light on certain phenomena more holistically and in depth (Yin, 2009, p. 10). There are various ways of conducting case studies such as single case studies, multiple case studies, and embedded case studies and they can be descriptive, exploratory or explanatory in nature (Yin, 2009, p. 11; Yin, 2018, p. 24).

The research in this thesis was conducted as a single case study. As this thesis seeks to answer to questions on how dynamic capabilities are utilized in a KIBS firm and more specifically, what are the most crucial capabilities in implementing a successful business model, it aims to identify key themes and build new insights on the topic. (Creswell & Creswell, 2018). Furthermore, as the context of the thesis provides a rather unique

setting and seeks to find causalities and explain relationships, it also provides exploratory perspectives (Creswell & Creswell, 2018). However, there are also limitations when conducting a single case study with limited generalizability (Yin, 2018), potential for bias (Stake, 1995), difficulties in establishing causality (Gerring, 2007) and the risk of over interpretation (Simons, 2009).

When choosing a research method, it is vital that the selected method aligns with the type of data required. The research methods include a quantitative and qualitative approach, and these methods can also be mixed (Williams, 2007). Quantitative research methods focus on the collection and analysis of numerical data, allowing researchers to identify patterns, test hypotheses and measure variables in a structured way (Williams, 2007; Yin, 2018). Also, these methods provide objectivity and reliability, often utilizing statistical tools to produce generalizable findings across larger populations (Williams, 2007; Hirsjärvi et al., 1997, pp. 130-133). The disadvantages of quantitative research are related to the potential loss of depth and context in the research data (Bryman, 2016). The qualitative research method emphasizes understanding the purpose and context of social phenomena through the analysis of non-numerical data, for example interviews and observations (Silverman, 2009; Eriksson & Kovalainen, 2015). In addition to this, the qualitative research approach focuses on capturing rich and detailed insights into the participants' perspectives in complex issues and naturalistic settings (Silverman, 2009; Eriksson & Kovalainen, 2015). However, the qualitative research also has downsides related to the generalizability of the results, mostly due to smaller sample size and the subjective nature of data interpretation (Flick, 2014).

In qualitative research, the data can be collected as primary or as secondary data (Saunders et al., 2007; Bryman, 2016). The primary data is collected often through interviews or observations (Saunders et al., 2007, p. 354) whereas the secondary data refers to already existing data and can be collected through reports, archives or previous studies (Bryman, 2016). This research was conducted as qualitative research using semi-structure interviews to the employees of the case company. A semi-structured interview

allows both consistency across the interviews as well as the opportunity to delve deeper into topics that arise during the conversations (Kallio et al., 2016). The semi-structured interview also allows researchers gather detailed and meaningful information on complex topics and understanding the interviewees' experiences and views more deeply than a strict interview structure (Kallio et al., 2016; Bryman, 2016). The semi-structured interview serves as an effective tool for comprehensively identify how a KIBS firm innovates its business models and determine which specific dynamic capabilities are considered most valuable and impactful.

### **3.2 Case context: The case company**

The study has been conducted as an assignment given by the case company. The case company is a Finnish software company founded in 2010, promoting the digitalisation of the built-up environment helping companies especially in the construction and real-estate sector in risk management and compliance issues. The mission is to promote sustainability and responsibility in business-to-business collaboration by building trust and innovative services that enable efficient cooperation. The company relies heavily on the expertise of the personnel and can be seen as a specialist organisation. The company's product and service portfolio consist mainly of products and services which help customers to fulfil a part of their legal obligations. Simultaneously, the company has succeeded in growing its business and expertise in the field where a significant amount of knowledge is accumulated and the ecosystem formulated around the case company is playing a crucial role in the compliance and risk management in the building sector in Finland. Furthermore, the company has set ambitious growth targets for the current strategy period, including launching new services not strictly tied to legislation but to actual customer needs, and therefore it sets a high demand also for the personnel to maintain and increase their knowledge and knowhow as well as to maintain innovativeness in the business development operations. What is more, despite being a software company, the nature of the business requires a deep understanding of the fundamentals of specific legislation related to the services. Therefore, it is beneficial for the case

company to understand what kind of role the company's dynamic capabilities play in business model innovation and was therefore selected as the subject of this thesis.

### **3.3 Data collection**

The primary data for the thesis was collected by conducting semi-structured theme interviews for employees of the case company, where the interviewees were offered the opportunity to address the topic discussed in their own words rather than restricting the conversation too strictly. Majority of the questions and themes were covered in all interviews, however, the emphasis varied depending on the familiarity of the topic to the interviewee. A total of 11 interviews were conducted, and all interviewees were selected based on either on their current position of the company (leadership team) or roles that are essential to implementing the case company's business strategy. Furthermore, this group was selected to give a versatile overview of the company, its business model and the analysis of the capabilities of the company. The interviews were primarily conducted as face-to-face interviews in April 2024, however some of the interviews were held as remote interviews due to remote work protocols of the case company. The topic of the thesis was introduced to the interviewees beforehand when agreeing on the interviews, with some of the most significant terminology related to the research and the topics covered. The interview average length 55 minutes, varying between 26 – 85 minutes and were held in Finnish as it was the preferred language selection for all interviewees, as they were able to provide a set of more descriptive answers. All interviews were transcribed to English for the analysis. The interview descriptions are presented below in table

6.

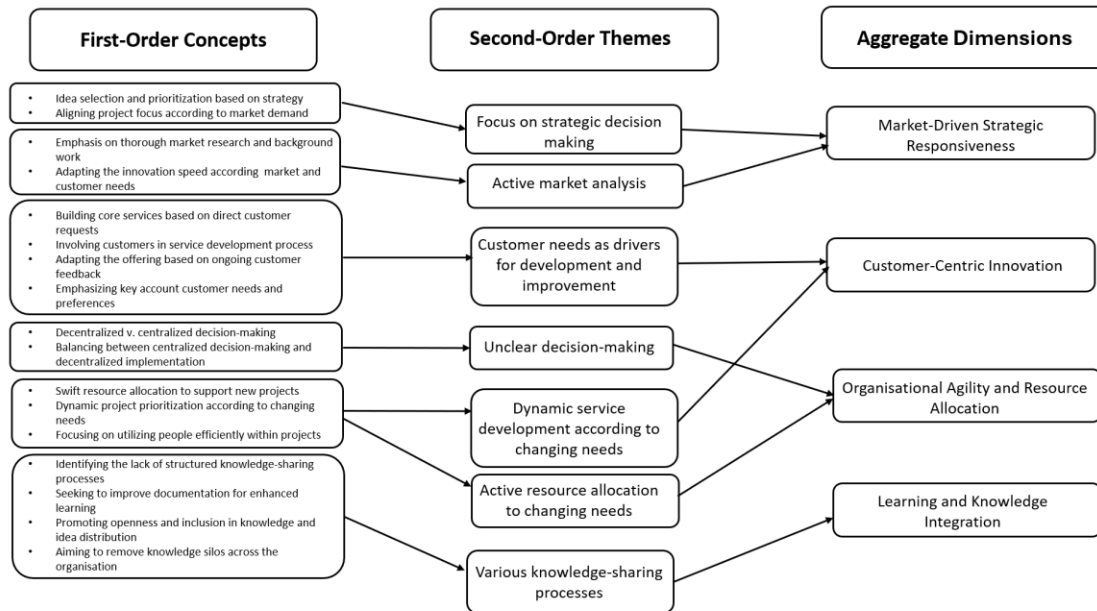
**Table 6** Interview descriptions.

Inter- viewee	Title	Years in the organization	Date	Length	Channel
1	CEO	1	25.4.2024	26 min	Face-to- face
2	COO	10	24.4.2024	46 min	Face-to- face
3	CPO	2	17.4.2024	59 min	Remote
4	CRO	0	23.4.2024	52 min	Remote
5	CITO	15	24.4.2024	66 min	Face-to- face
6	Project Manager	1	16.4.2024	67 min	Remote
7	Senior Product Man- ager	11	15.4.2024	70 min	Remote
8	Product Manager	5	16.4.2024	58 min	Face-to- face
9	Product Manager	4	17.4.2024	34 min	Remote
10	Partnership Director	10	15.4.2024	85 min	Face-to- face
11	Marketing Director	2	18.4.2024	45 min	Remote

### 3.4 Data analysis

The data analysis is based on the single case study interviews. The data analysis started with reading through the transcribed and translated interview material multiple times in order to get a good overview of the interviews. The Gioia method (Gioia et al., 2013) provides a systematic method for transforming raw research data into structured insights and was used as a tool for the data analysis. More concretely, the Gioia analysis was conducted with Microsoft Word. First, the First-Order Concepts were pointed out from the data through scanning the interview material and coding the data using the interviewees exact language to support the First-Order Concepts with relevant quotes. Furthermore, the aim was to discover and identify specific activities, behaviours or challenges related to the themes of Dynamic Capability practices in the company as well as aspects related to Business Model Innovation described by the interviewees. The emerging themes and concepts were pointed out from the data with different colours to help visualizing the relevant, recurring themes, patterns and words. Moving on from detailed quotes and expressions towards broader theoretical constructs, the Second-Order Themes were built by grouping the related themes and codes to identify larger patterns,

reflecting also the theoretical insight. Finally, the Aggregate Dimensions were formulated based on the second-order themes, creating a higher-level set of theoretical insights mirroring the collected data. The data structure is described below in Figure 8.



**Figure 8** Data structure.

### 3.5 Reliability and validity

The reliability and validity of the research are crucial factors to be taken into consideration. The reliability of the study refers to the consistency and stability of the research findings if the study were to be repeated in similar conditions (Saunders et al., 2019). Furthermore, the reliability and validity in a qualitative study differ significantly from those in a quantitative study. In qualitative research, it is vital to follow a consistent process for data collection and use detailed descriptions to capture the experiences and perspectives of the participants, whereas in quantitative research the focus is more on ensuring measurement consistency and accurate variable representation (Saunders et al., 2019). There are different factors that can affect to the reliability of the study, such as the reliability of the semi-structured interviews, in addition to other errors and prejudices that the researcher might have as the qualitative data contains an interpretive aspect (Saunders et al., 2007; Cypress, 2017). The reliability of this study is ensured by

using consistent data collection procedures and describing the utilization of the Gioia method transparently. However, as the study is conducted with semi-structured interviews representing a certain time frame, the results would not necessarily be repeatable if the study were conducted in a later time period.

Validity of a study refers to the extent to which the research is able to produce results that represent the phenomenon relevant to the study (Creswell & Creswell, 2018). Therefore, it is important for the researcher to ensure that the interviewees have a clear understanding on the research questions. The validity of the study was ensured by introducing the topic and the key terminology in the beginning of every interview, so the participants were able to get a short overview of the context. However, due to the participants' proximity to business processes, the questions were more familiar to those working centrally in business development compared to participants that might be in the leadership team, but with more emphasis on support functions. The validity of the study can also be affected by different factors, such as researcher bias (Creswell & Creswell, 2018) and was acknowledged as a potential risk for the validity of the study as the researcher works in the case company. This aspect was taken into active consideration when analysing the interview data, with the support of the coding process following the Gioia method. Also, the generalizability of the study is an important aspect when considering the validity of the study. As the study focuses on a specific and unique context of the case company, the results of the study are usually not generalizable. However, a single case study can offer theoretical or analytical generalizability where observations from the case may contribute to broader theory development (Yin, 2018).

## 4 Findings

This section introduces the results and findings of the empirical study. First, the case context is presented along with the depiction of three of the company's key Business Model elements. After introducing these, the dynamic capability practices driving BMI for a KIBS company are introduced based on the collected data. Finally, the findings are discussed and summarized.

### 4.1 Case context

The case company is a Finnish SaaS-company operating in the IT-sector providing services for procurement and risk management purposes, originally mainly for the building and real estate sector, but more recently for other industries as well. The position of the case company is rather unique as most of the services provided are formulated around specific legislative processes and there are only few indirect competitors. Furthermore, due to the legislative aspects, it requires a considerable amount of industry and legislation specific know-how and expertise to be able to cater to the customers' needs, which has formulated the basis for one the case company's core competences and sources of competitive advantage. The portfolio of services is formulated around two main service areas, which have been, and still are, the cornerstones since the company was established in 2010.

*"Our market position is mainly built around legislative requirements. The Contractors' Liability Act has significant impact on our business and is a part of our business model." (Interviewee 10)*

*"The two of our main service areas are developed and ideated by our customers and stakeholders. The needs have been brought to us and we have developed the services based on these customer needs." (Interviewee 2)*

As the case company was founded by five large unions in the real estate and building sector, the original mission and purpose for the case company was to promote and offer reasonably priced services for the union members to fulfil their legal obligations. Since

then, there have been changes in the company ownership structure, and the vision and mission have also been clarified for future growth purposes.

*“Well, if you aggravate a little, before we were almost like a registered association, who tried to do good for everyone who just asked. Today, we want to be a company who operates based on the delivered customer value leading the company towards growth.” (Interviewee 1)*

The case company’s position in the markets is justified with the legislative expertise gained since the establishment of the company, but also through the neutrality. The two main businesses are formulated around collecting data from different data sources – from private data operators as well as authorities. Managing the ecosystem and maintaining a high level of quality and reliability in the data sets high requirements for the company’s operating systems.

*“We are an established operator in the Finnish markets. We are a reliable partner for our customers in data management and ensuring that the customers can operate in a responsible manner.” (Interviewee 4)*

*“Our company has positioned itself in the markets as a reliable data source, that helps customers to fulfil their legal obligations”. (Interviewee 2).*

*“Providing trust services is the key.” (Interviewee 2)*

The Business Model of the case company was covered in the semi-structured interviews to form a basis for understanding the key dynamic capabilities affecting and enabling business model innovation. All interviewees are either members of the leadership team or operate in a business-critical role. The overall picture of the key elements formulating the current business model were discussed thoroughly. In addition to certain elements being clear and formulating a unanimous picture of the case company’s status, there were also discrepancies between the interviewees’ viewpoints.

#### 4.1.1 Customer Engagement Practices

The customers are a central part of developing and creating new services for the case company, characteristic to a KIBS company. The core offering is based on concrete customer needs and the importance of customer feedback is widely recognized in the company. A significant amount of effort in customer relationship activities is targeted towards the major key account customers, who play a significant role in ensuring the case company services' scalability when integrating the core service offering of the case company to their business-critical processes.

*"We develop new services together with our customers. The feedback that they give is in a pivotal role when planning new services." (Interviewee 5)*

*"We have been able to get our biggest customers to recommend or even require their subcontractor network to make use of our services. Therefore, the customer operates more or less as our partner." (Interviewee 2)*

As the case company offers SaaS-services and has made a strategic choice not to offer tailored solutions to any customer, the business development activities include considering all potential customer segments and their needs – not only some specific or chosen customer segments. Due to the scarcity of competition in the markets, this presents a valuable opportunity to the case company but also a challenge.

*"The customers and their subcontractors need to take care of the legal obligations in some way. There is the fully manual option, but our services offer a popular option too as there is relatively no competition. On the other hand, this makes it difficult for us to cater to everyone as we need to take such a wide range of companies and their needs into consideration." (Interviewee 4)*

*"We need to create sticky-factors to our services, for them to be even better and serve the customer needs. This way, the barriers to change to another service providers are higher." (Interviewee 1)*

The value proposition in the case company is centrally built around delivering customer value through streamlining critical processes for the customers to gain cost savings and

more efficient operation. The reliable data is also in a central part, as the data provided by the case company is unique and reliable. The company possesses data from several years, and due to this and the strong position in the ecosystem formulated around it, the case company has gained a significant status in the markets as a trustworthy partner for its customers. The expertise related to the legal-specific know-how can also be considered affecting the customer value. In addition to these, value delivered to the subcontractor is also considered as in a relatively low price they can improve their opportunity to gain new contracts and ensure business continuity.

*“Our business model is built around digitalizing certain processes for our customers. The value is generated when the customers save time through this digitalization process. Our customers trust us on these processes. You could call it providing Business Process as a Service or Compliance as a Service. We have also gained a credible position in the eyes of the Finnish authorities.” (Interviewee 2)*

*“Generating value through customer centricity is the key. We provide data and services that reduce the administrative burden from our customers.” (Interviewee 4)*

*“Primarily we create value to the buyer organisation, who has to follow the legal obligations and check the background of the subcontractor. The secondary value is created to the subcontractor, who on the other hand is the one to pay the yearly fee, and therefore the payer, but increasing the opportunity to win in the tender competition. This is our business model – the price of the service is low, and we generate revenue through this.” (Interviewee 2)*

*“When using our services, your company can act responsibly and check the reliability of your business partners. We are an industry independent operator that can streamline your processes.” (Interviewee 1)*

However, the customer value proposition is seen lacking from the case company by one interviewee, and the role is more a data distributor than a value creator to customers. The value proposition is not clearly communicated in words to customers but the external communication concerns more the operative level of availability of the services.

*“I don’ think we have a value proposition to our customers. The only promise we have, is that our services are accessible 24/7. In some cases, we promise that our data is reliable, and our customers can use it in risk management purposes. We are a data distributor.” (Interviewee 8)*

The base of the case company services is formulated around data. There is a large ecosystem operating around the case company business, where for example access control firms play an integral part ensuring the fluent operation of a construction site. The case company data is integrated in the building site processes, which is one of the key distribution channels for the case company. In addition to this, the case company web portal is the main channel for the customers.

*“The data we provide to our customers is always available and reliable. This provides a competitive advantage also to our customers.” (Interviewee 8)*

*“We have a good track record of being a reliable partner. With that we have earned the position in the markets where we are now.” (Interviewee 4)*

*“We operate in a large ecosystem as a neutral operator, which enables a more fluent every day for our customers. We need to recognise new opportunities from the perspective that we do not provide tailored solutions for certain customers, but we need to consider the needs of the whole industry. This strengthens our market position.” (Interviewee 4)*

The customer relationships are built upon the case company’s strong image of a reliable data provider, which has been enforced with the support of the relevant authorities as well. However, gaining this position and trust in the eyes of the whole ecosystem has taken several years and has required a lot of systematic brand building and redeeming the expectations. Furthermore, as it is characteristic to a KIBS firm, the case company creates value by creating services together with customers. Also, collecting feedback actively formulates the base for the company’s service development and acts as a fundamental role in keeping up in the changes in the competitive environment.

#### **4.1.2 Business Infrastructure**

In a KIBS company, an agile infrastructure is crucial for delivering services. Furthermore, the high quality of the data is also highlighted, as the impact of the data affects not only to the case company’s customers, but also to the entire network of subcontractors and

the ecosystem around it. The data serves as one of the key resources of the company enabling and maintaining its competitive position.

*“We have put a lot of effort to the fact that the company and employee data we collect and distribute to our customers and partners is high quality data. The reliable data has provided us the opportunities to grow until now, and I believe it will serve us for the same purpose in the future also.” (Interviewee 7)*

In addition to distributing the data, the data collection, processing and analysing form an integral part of the company’s business model and key activities. Creating business not only for the case company, but also for partners and other stakeholders makes the setting and competitive position of the case company unique. The accumulated knowledge regarding procurement and subcontractor management processes serve also to the benefit of the case company, in addition to the expertise around relevant legislation and industry regulation.

*“We operate with several different stakeholders. We create and enable business for our partners, who can offer our data to their customers as a part of their value chain.” (Interviewee 2).*

*“Data collection, data processing and data analysing are our key activities. We also guide our customers legislative expertise and help them to do their business.” (Interviewee 5)*

*“We have a lot of internal know-how. I wouldn’t say we are technically more advanced, but our competitive advantage is based on our understanding of the customers’ key processes. That’s where value is created.” (Interviewee 5)*

Analytics and customer data create the foundation of the case company’s business operations, enabling the understanding of customer needs and provide more in-depth business analysis. The data-driven approach highlights the knowledge-intensity and adaptability of the case company as a KIBS company, which aids in delivering value to customers and the whole ecosystem.

*“Analytics and utilizing customer data is at the core of our business.” (Interviewee 5)*

The business infrastructure of the case company is highly data driven. The key resources, activities and partnerships are built around collecting, analysing, utilizing or distributing the data for value creation. As a part of its business model, the case company has generated a model where the data in the ecosystem is refined and each member in the ecosystem has been able to create value around it – either in the form of cost savings or generating revenue.

#### **4.1.3 Financial Model**

The case company's pricing strategy is based on a recurring revenue business model. Majority of the services are priced affordably, ensuring a high rate of customer retention as well as easier decision making for new customers to buy the services without the price affecting too much on the purchase decision. The similar logic is carried out through the entire service portfolio, where the size of a single transaction is less important than achieving high volume.

*“Our services are based on a recurring revenue business model. We do not do projects but sell licences to our customers.” (Interviewee 2)*

*“We aim to keep the prices of our services reasonable, because it is for our benefit to increase the volume of the services.” (Interviewee 6)*

Due to the ecosystems thinking and the achieved position as a credible data provider and an expert in the construction and real estate sector, the case company has also been able to build a scalable cost structure, where handling and analysing the data is built around several years of expertise in the data processing. Furthermore, the company has been able to keep the fixed costs in control, and they have not increased excessively, despite the customer base growing rather fast. This unique know-how enabling the low-cost structure is considered one of the key strategic aspects maintaining the competitive advantage for the case company and will also provide new opportunities in the future.

*“Our cost structure is very scalable. We don’t do resale of just one service to one customer but our whole service portfolio as SaaS-service to all our customers. Therefore, our cost structure is good. If we would buy the data straight from a data source it wouldn’t work, and our cost structure would be different.” (Interviewee 2)*

*“The current revenue opportunities are quite a lot on our current customer base, which is in tens of thousands.” (Interviewee 6)*

By leveraging streamlined cost-effective services, the case company is able to deliver high-value specialized services at a low cost. Thus, by focusing on scalable processes, the company can improve operational efficiency, maximize profitability while maintaining an agile approach in the changing business environment. This chosen strategy is also supporting the future growth targets when the company continues its expansion to other industries.

*“We are not that industry dependent. If there is a recession in the building sector, it doesn’t have such a significant impact to us. Our services are scalable to any industry. We can build new services on top of the existing ones, and we can generate new, scalable growth opportunities through those.” (Interviewee 2)*

The case company’s ability to scale up the customer volume as well as the cost structure represent the core elements of the success of the company’s business model.

## **4.2 Dynamic capability practices driving BMI in a KIBS firm**

The main purpose of this study was to point out dynamic capability practices affecting and driving business model innovation in the case company. Furthermore, the interview material was analysed with the Gioia method, where four different themes emerged from the interview data. These four themes enabling business model innovation in a KIBS firm are presented in the following sections through the lens of dynamic capabilities. The findings are supported with direct quotes from the interviews.

#### 4.2.1 Market-Driven Strategic Responsiveness

The position in the markets of the case company is centrally tied to the relevant regulation, such as the Law on Contractor's Liability. Since its establishment, the company has been able to grow its customer base and create new value-added features to customers on top of the existing services. This has generated a steady profitable growth in this business sector since the establishment of the company. This business model will also be used for future growth targets.

*"We launch and upgrade new functionalities in our services, where we already have an existing customer-base. This is a sensible strategy, because we have the firm customer base to whom we cater something new and charge just a little more on the package rather than creating a completely new service from scratch." (Interviewee 7)*

*"The barriers to entry to the markets are quite high, especially when it comes to the Contractor's liability act and obeying that law. It is not easy to enter the current markets. This means that we need to take care of our relevant capabilities, so that even in 10 years we still are a relevant player in the markets. This means that we need to develop more features in the current services to access to new markets also." (Interviewee 4)*

In addition to actively targeting to create new value-added features on top of the existing service portfolio, the know-how accumulated around the rules and regulations concerning the ecosystem have aided the case company to reach a reliable position also in the eyes of the authorities. Reliability of the data and open communication towards the authorities are seen to have a direct impact on the business.

*"We are closely in contact with the authorities. We also get relevant and useful information from there for business development purposes." (Interviewee 9)*

*"We have an exceptional collaboration with authorities. That sets high barriers for potential competitors to entry the markets." (Interviewee 6)*

*"One of our core values is to handle the data extremely carefully, so the data remains reliable. We are open towards the authorities as well when we exchange data." (Interviewee 8)*

The two main service areas of the case company have become almost as standards in the construction industry. The company's ability to sense market needs and react to these needs have been the enablers and sources of growth and gaining the current market position. This active customer driven development has resulted to successful business decisions.

*"Our organisation is able to adapt rapidly to changes in the markets and customer needs." (Interviewee 2)*

*"We have been in the right place at the right time, which is a result of know-how, timing and luck, but also good products that actually respond to customer needs." (Interviewee 4)*

When switching the focus to future the case company sees the growing demand on competitive environments, where it does not yet have a foothold. The growing need for companies to operate in a responsible manner in all industries due to new regulations, will also drive the strategic decision making and guide the market shift for the case company. However, this requires a thorough analysis against the company strategy.

*To ensure growth, we are shifting towards more competitive markets. We will no longer be only in the "fighting against grey economy sector" but we are proceeding towards the CSRD-markets. This will also take us to new markets." (Interviewee 11)*

*"In the future we should consider several aspects when deciding whether or not we want to invest to new development, including the validation of the new idea against our strategy and our roadmap." (Interviewee 1)*

The future growth drivers for the company lie in the opportunities provided by the emerging regulation, which also holds an international aspect for the case company. The need to keep up with the markets shifts and develop new value-added features to existing and new potential customers is critical.

#### 4.2.2 Customer-Centric Innovation

New service and business development occur with a strong support of customer feedback, which also highlight the emergence of sensing capabilities. A strong understanding also from the grass-root level helps understanding the actual needs of the customers. This has led to a situation where emerging needs from the customers are brought to the case company, expecting it to provide a solution for these. This is a sign of strong relationship and appreciation.

*“We have conducted extensive customer interviews, where we identify the customer’s challenges and try to find a solution for it.” (Interviewee 2)*

*“We understand the core-business of the customers. Sending invoices and other bureaucratic work takes a lot of time. This is where we can help our customers in for example the upcoming CSRD-reporting: our services are simple and easy to use for the entrepreneur, so they don’t have to spend too much time on this but focus on their core business – construction.” (Interviewee 11)*

*If one of our most important customers have new needs related to risk management or compliance issues, they will turn to us and inquire whether we are able to provide a solution for them. The customers see us as their partner. (Interviewee 6)*

*“We are not a business selling software to other companies. We collect and process data and distribute the data to our customers and partners in a way we see fit, and I believe this will be the business model for us in the future as well because we are good at it.” (Interviewee 5)*

When considering the customer needs as drivers for development and innovation, the case company has a history of grasping new opportunities rather swiftly. This had led to success but also to misguided business decisions. Therefore, in the future it is vital to conduct more thorough business and market analysis. Also, the customers’ willingness to pay for the new features or services need to be validated in the process of decision-making.

*“When evaluating new business opportunities, we need to spend more time to make a structured and thorough analysis. We need to openly communicate to the organisation if we don’t have enough data for decision-making.” (Interviewee 1)*

*“We haven’t done enough background research and business analysis previously, or if it has been done it has been rather superficial.” (Interviewee 7)*

*“Even if there are a lot of positive signals in the air, it doesn’t mean that we have a good business unless we have enough customers who are willing to pay.” (Interviewee 4)*

The importance of innovation is recognized as a success factor for the company. However, the innovation capabilities evolve around customer processes and is not a structured process. New opportunities could lie with closer collaboration with the key partners. Also, instead of only focusing on developing the current service portfolio by innovating new services, potential opportunities for new business could lie automating the entire process of risk management but also other business critical processes for the customers.

*“The role of innovation has not been as big as it should be in the company.” (Interviewee 11)*

*“We are not at the forefront of technical innovation; our core capability evolves around process-innovation.” (Interviewee 5)*

*“The greatest potential would be to utilize our partner networks even more to get more data and gain more customers.” (Interviewee 8)*

*“In the future, we should be thinking more Business Process as a Service. Are there some processes that we could take care of entirely on behalf of the customer?” (Interviewee 4)*

There are structured customer feedback practices and sensing the customer needs through a more systematic innovation process is needed. Customer needs act as drivers for development and improvement and have led the company to success. It is the internal processes that need improvement.

### **4.2.3 Organisational Agility and Resource Allocation**

It was evident based on the interviews, that the biggest challenges in the organisational agility are related to unclear decision-making processes and practices. Despite the

organisation's ability to react swiftly to shifting market trends and customer needs, the centralized decision-making has impacted the culture, where employees might be too passive in decision-making. As the company employee number has grown in during the recent years, the decision-making culture has been moving from a decentralized, informal decision-making process towards a more centralized, formal process, which can also be considered as a conscious decision to achieve the future growth targets.

*"Our decision-making is too centralized. People either don't want or are too afraid to make decisions. In my opinion, we would need to listen more closely to the specialists working closely with the services when we do the background work." (Interviewee 4)*

*"Decision-making is encouraged in the organisation, but the downside is that you have to live with the possible consequences." (Interviewee 2)*

*"Decision-making has to be centralized. We need to understand that decisions are made based on the current knowledge. In practice it is impossible to know everything in advance, but our culture needs to support flexible decision-making - when we have new information, we can change the decision." (Interviewee 1)*

*"We are moving towards a better direction (in decision making). I can see that we are more dynamic and dare to make bigger decisions." (Interviewee 5)*

The case company has succeeded in launching new services and features to existing ones in the recent years. This has required active resource allocation in order for the company to be able to respond the new requirements and customer needs. One concrete example has been to separate the continuous service development and new service development into two separate teams. The investigation of new market opportunities is one of the main tasks for the new Growth-team. This has been a conscious strategic choice for the company and has directed the decision-making to a more structured direction.

*"The Growth team is responsible for the new projects that drive the new business opportunities." (Interviewee 7)*

*“We are at a breaking point where we explore the opportunities to enter to new markets with our data. We have had the capabilities also before but perhaps not the opportunities or willingness to implement these.” (Interviewee 4)*

*“We want to be disciplined and base our business cases to facts. We are going the right direction, but we still have a few steps to take.” (Interviewee 1)*

The changes in the organisational structure have aided the case company to move towards the growth targets. Concrete changes are made but there are still things to be made to align the entire organisation accordingly primarily for innovation purposes. However, in addition to the current know-how and expertise in the company, the future competence needs need also be taken into consideration.

*“The challenge is to make sure that we align our resources accordingly to be able to achieve our growth targets.” (Interviewee 1)*

*“If we want to be more innovative and take more risks, we will need to restructure our organisation accordingly and make sure that we have the required know-how.” (Interviewee 5)*

The relatively small size of the case company has offered the possibility for swift changes in the history. This has been one of the reasons behind the company’s competitive advantages. Developing the existing services has helped the company to grow and reach the market position where it is now, even if the utilization of internal capabilities has not always been optimal. The bottlenecks regarding decision making, might affect the organisations’ agility.

#### **4.2.4 Learning and Knowledge Integration**

The processing of data is at the core of the company’s current business model. It relies heavily on the employee’s accumulated know-how in the active knowledge-sharing within the ecosystem. The knowledge integration will be in a more significant role in the future, when the level and readiness of digitalization among the customers will also change.

*We are considered as a credible operator in Finland. We don't have to act as we did in the start-up mode years ago, instead we have the opportunity to introduce ideas in the ecosystem because we have the know-how to do it. The role of our own specialists is critical. (Interviewee 6)*

*"We are actively in contact and share information with our data providers, partners and customers." (Interviewee 9)*

*We need to communicate actively with the key stakeholders. Both the bigger corporations as well as the entrepreneurs. If we are not able to answer to both of these customer groups' needs, it might tempt other competitors to the markets. We need to also acknowledge the changing needs of the future workforce who are expecting a certain level of quality of the services that they use. We need to keep up with the technical development also." (Interviewee 5)*

The internal knowledge sharing processes are an integral part of the improvement of the case company's learning capabilities. At the moment, internal knowledge sharing is not a formal process but depends more on each individuals' capability and willingness to share information. However, there is a strong willingness to improve these processes in addition to better documentation and removing knowledge silos inside the company.

*"We should share information more actively inside the company." (Interviewee 8)*

*"We do not have a process for introducing new ideas or innovate. There should be a process for this." (Interviewee 11)*

*"In addition to the validate the new business idea with customers, we need to put more effort into the internal validation – including the development costs, schedule and investments." (Interviewee 5)*

*"We acknowledge that we are dependent on the know-how of specific individuals." (Interviewee 3)*

Despite the lack of formal, company-wide knowledge sharing processes, there is a concrete example of how two teams have succeeded to create a one-off knowledge transfer process when launching new services.

*“We are operating in narrow resources, and everyone is busy with their own work. We have formulated the handover process for knowledge-transfer. On the other hand, the knowledge-transfer is up to the personal capabilities of employees.” (Interviewee 9)*

As mentioned previously, the role of innovation is not significant in the company at the moment. Thus, it is not a part of the current knowledge-sharing practices either. The case company’s competitive position has not forced enough pressure yet for the company to invest in a separate, formal process. However, the opportunities for internal knowledge sharing between different service-teams could result in less siloes in the company.

*“Innovation is not encouraged in the organization. I don’t know if it is because of our history, when we haven’t had to innovate because we can rely on the (construction and real estate) industry’s cycles” (Interviewee 4)*

*“A good way of strengthening our competitive advantage would be to investigate synergies between our services.” (Interviewee 9)*

In conclusion, learning in the case company currently occurs mainly through the collaboration with customers. A more systematic knowledge and innovation process would be necessary in the future, considering also the potential additional sales opportunities between different service categories.

### **4.3 Synthesis – Dynamic capability practices driving BMI in a KIBS company**

This synthesis combines the previous analysis section and examines the topic of Dynamic capability drivers of Business Model Innovation in a KIBS company coherently in the case company context. These are also illustrated below in Figure 9 in the Empirical framework.

The findings of the study reveal that the case company’s market position is centrally tied to its expertise in regulatory requirements, such as the Contractor’s Liability Act, which has significantly impacted the business model. Furthermore, this has not only affected

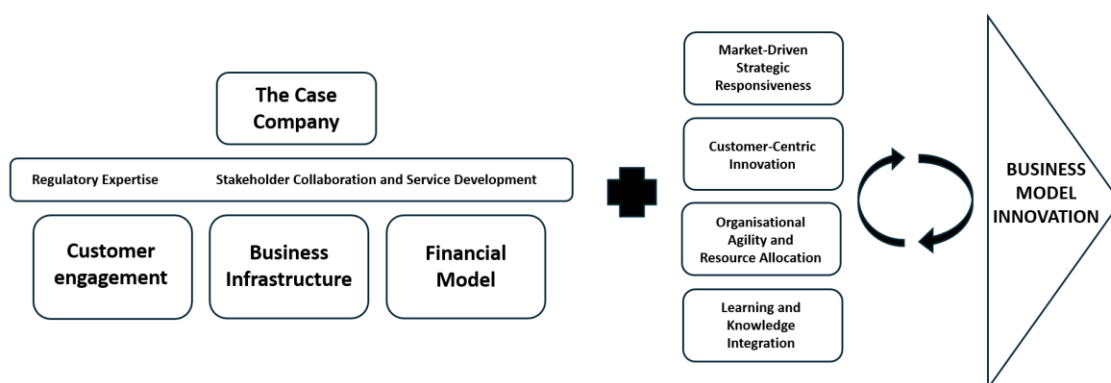
the company's value proposition but has also created high entry barriers for competitors to enter. From a dynamic capability perspective, this regulatory know-how operates as a fundamental asset supporting the sensing, seizing and reconfiguring capabilities, central in Teece's (2007) dynamic capabilities framework, enabling the company to identify changes in the legal requirements and adapt the offering accordingly. The regulatory know-how has offered the company a position as a market leader as well as enabled sustained growth through a recurring revenue model. This aligns with the dynamic capability literature, where applying industry-specific know-how (Teece, 2007) and creating dynamic capabilities as repeatable processes to enable effective response to market dynamics (Eisenhardt & Martin, 2000) helps in maintaining a competitive edge in the markets.

The development of new services in the case company is highly customer-driven, characteristic for a KIBS firm (Miles et al., 1995 & den Hertog, 2000). Furthermore, customer feedback plays a central role and the close collaboration with customers demonstrates a strong market sensing capability and has led to the co-creation of services meeting the specific industry needs, supported also by the study on BMI in KIBS firms by Chesbrough (2010). With strong engagement in the ecosystem, the company operates not only a service provider for its customers but a partner in the customers' procurement and compliance areas, where the services are easily mergeable into existing processes. As the company has a thorough understanding of the customer processes, this enhances Teece's (2007) notion of seizing opportunities, where with agile service development processes, the company can develop solutions enabling the integration of customer feedback into service innovation. Thus, this also leads to the strengthening of the company's competitive position.

The case company's business infrastructure is constructed to adapt swiftly to changing market needs. However, decision-making has emerged as a challenge, as the company has not been able to maintain a flexible culture related to decision-making while growing the business. Regarding Business Model Innovation, Eisenhardt and Martin (2000) claim

that agility includes the ability to respond to changing needs as well as effectively allocating resources in response to these changing circumstances. Thus, the strategic decision to separate continuous development from new business development by establishing the Growth team reflects the case company's attempt to move forward to a more agile approach in resource allocation and knowledge sharing, which also supports Eriksson's (2014) view on the role of dynamic capabilities in company renewal. Allocating specialized teams for growth-oriented projects, allows the case company to invest in exploring new market opportunities while focusing also on existing service development.

The learning practices in the case company are mostly informal as knowledge-sharing occurs largely through interactions with authorities, customers and partners. Establishing a central role in the ecosystem has been effective, however a more structured knowledge-integration process could lead to more systematic innovation and continuous development processes. What is more, the reliance on individual expertise emphasises the need for more systematic knowledge sharing protocols to avoid bottlenecks. This is also emphasised by Teece (2007) as companies should actively adopt practices to support decentralization for organisational agility and market responsiveness. The empirical framework for the thesis is illustrated below in figure 9.



**Figure 9** The Empirical framework.

## 5 Discussion

This section introduces the theoretical contributions of this thesis. Following this, the managerial implications are presented. In conclusion, the suggestions for future research are presented as well as the limitations of the study.

### 5.1 Theoretical contribution

The purpose of this thesis was to study how a KIBS company utilizes dynamic capabilities to drive business model innovation. The thesis began with an introduction to the topic following the discussion of the motivation of the study, research gap and the research question finalizing with the description of the structure of the thesis. The comprehensive literature began with the introduction of business models and Business Model Innovation, including the definitions, antecedents, processes and outcomes. An adapted version of the Business Model Canvas by Osterwalder and Pigneur (2010) was selected as the framework for this thesis to illustrate the three key aspects of a business model: Customer Engagement, Business Infrastructure and Financial Model. Following with the introduction of Dynamic Capabilities and its antecedents, this thesis mirrored the dynamic capability framework by Teece (2007), which categorises the dynamic capability practices into three microfoundations: sensing, seizing and reconfiguring capabilities. As the existing literature on these themes is fragmented both in Business Model Innovation and Dynamic Capability research, the lack of consensus in the academia is also recognised. As KIBS firms tend to emphasize knowledge integration and customer co-creation more compared to other types of companies, this setting offered a fruitful opportunity to study the interplay of these topics in a KIBS context in a unique setting.

The findings revealed that in the KIBS sector, companies face unique opportunities and challenges when utilizing dynamic capabilities for Business Model Innovation. More specifically, the dynamic capability perspective highlights the distinct practises in a KIBS context related to continuous learning and knowledge integration, organisational agility and resource allocation, customer-centric innovation and engagement as well as market-

driven strategic responsiveness. This study reveals that the sensing practices are driven by actively collecting customer feedback and monitoring changes in the competitive environment through active networking, where the external information sources play a key part. This contradicts with the existing literature, where the internal R&D procedures often act as a source of opportunity recognition (Teece, 2007). Furthermore, it was also discovered that, engaging customers and partners actively for collaborative problem-solving, emphasises the utilization of seizing capabilities in a KIBS company.

The prior Business Model Innovation research implies that it is a complex process, where different factors, such as organisational structure and market conditions, have an effect on the outcome (Chesbrough, 2007; Foss & Saebi, 2017). This study indicates that business model changes in KIBS firms emerge from iterative sensing and seizing practices, such as ongoing customer feedback collection processes or iterative feature development based on customer feedback rather than from strategic large-scale decisions. Furthermore, this emphasizes the viewpoint that business model innovation can be initiated and driven through day-to-day interactions with key stakeholders and does not always require a formal strategic planning process. This thesis implicates that the dynamic capability framework by Teece (2007) offers a structured way to understand how KIBS firms adapt their business models in various conditions. Furthermore, the adapted Business Model Canvas by Osterwalder and Pigneur (2010) helps to identify the most critical aspects for dynamic adaptation, when illustrating how KIBS firms operate in changing conditions.

In conclusion, this thesis mainly contributes to the existing literature of business models, Business Model Innovation, dynamic capabilities and KIBS combining these research fields into a theoretical framework to illustrate the dynamic capability practices driving Business Model Innovation in a KIBS company. The theoretical framework in this thesis is applicable for further research and should be further developed for a more accurate depiction depending on the case context.

## 5.2 Managerial implications

As the existing literature on the key theoretical themes covered in this thesis offer a more process and theory-oriented perspective, this single case study offers a more practice-oriented approach on how a KIBS company utilizes dynamic capabilities to drive Business Model Innovation. The findings shed light on concrete actions for KIBS firms to implement in their day-to-day operations for Business Model Innovation, answering both to internal and external changes in the conditions.

One of the key managerial implications of this study is to encourage the alignment of decision-making processes with the company strategy to ensure sustainable success. Despite KIBS companies often following an agile and flexible strategy to pursue growth, the continuous process of chasing short term goals may not necessarily lead to success. Also, this study emphasizes the importance of networks as a crucial factor for utilizing the sensing opportunities and seizing capabilities in a KIBS company. Maintaining and nurturing close relationships with key customers and stakeholders provide the access to valuable insights and expertise which can help in creating long-term success. Furthermore, this does not only improve the company's ability to sense and seize new opportunities but supports continuous development and knowledge-integration processes.

To sum up, to ensure collaborative organizational culture and promote innovation, the actions supporting these targets should be emphasized on the managerial level. Promoting an open communication culture as well as creating inclusive decision-making processes supports the development of sensing and seizing capabilities driving Business Model Innovation in a KIBS company. By focusing on the aforementioned areas, KIBS companies can respond to changing market needs and sustain long-term growth.

### **5.3 Suggestions for future research**

As the global markets are in a constant change, there are several opportunities for future research in the field of business model innovation and dynamic capabilities in the context of KIBS companies. This thesis shed light on the dynamic capabilities driving business model innovation, and it would be fruitful to conduct a comparative analysis between multiple cases across various knowledge-intensive industries. This would offer a more validated approach to the findings of this thesis and illustrate how different companies utilize dynamic capabilities for business model innovation. Also, another potential topic for future research would be comparing the dynamic capability practices in a KIBS company to a company operating in a more traditional industry, such as manufacturing, which could offer interesting insights on the similarities and differences between industries.

Furthermore, as this single case study is a reflection of the dynamic capability practices driving business model innovation in a certain time period, it would be beneficial to conduct a similar study in a longer period of time to gain deeper understanding of how dynamic capabilities contribute to the long-term changes in a company's business model. Also, as supported by the suggestions of Aspara et al. (2010) it would be largely beneficial to understand the impact of business model innovation to financial performance, specifically from the perspective of dynamic capabilities.

### **5.4 Limitations**

This thesis was conducted as a single case study, utilizing the broad concepts of business model innovation and dynamic capabilities. Both of these broad concepts lack a unanimous view on the academia. As the study focused on finding specific dynamic capability practices driving business model innovation in the case company, the results of the empirical section are not generalizable.

To conclude, this study offers only a snapshot of a KIBS company's dynamic capability practices, which drive business model innovation in a certain time period with a selected sample size of 11 employees of the case company. Furthermore, as the researcher is also an employee in the case company, the subjectivity and interaction with the interviewees may affect the interpretation of the results, which is also noted by Saunders et al., (2007).

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## **Appendices**

### **Appendix 1. Interview questions**

#### **A semi-structured theme interview**

##### **Background information and current situation of the case company:**

What is your current job position and how long have you been working in your current role?

How in your current position are you involved in business development, innovation, and/or research activities?

Can you describe the current mission and vision of the company?

What are currently the most critical factors or capabilities enabling the current market position of the company? Please provide examples from external and internal factors.

##### **Business Models & Business Model Innovation:**

Describe the current business model and value proposition? Which elements in the current model affect the most on the success of the current business model?

What are the reasons and drivers for growth in the upcoming years? Where do you see most potential?

Do you recognise methods or tools that are currently used or have been used for business development?

Describe the company's current position in the market. Which factors or elements do you recognise that are unique?

The competitive environment: do you recognise some weaknesses or threats in the current business logic, how about strengths or opportunities?

##### **Dynamic capabilities**

What is the role of innovation in the company?

Who are involved in business development and innovation activities?

***Sensing capabilities:***

Describe the current R&D processes from the perspective of current solution development and establishing new solutions? How do you select new technologies?

What are the drivers for investments in R&D and how has it developed in recent years?

Describe the processes for investigating and monitoring innovations in science and technology?

How do you monitor and identify target market segments, changing customer needs and customer innovation? Do you include customers in the innovation processes?

***Seizing capabilities:***

How do you manage innovation processes in the company?

Describe the process from seizing and opportunity for innovation towards pursuing the opportunity?

Describe the process of selecting the business model including target customers, revenue model, cost structure and product architecture, resources, key partners, and channels? How do you avoid errors in decision making (bias, delusion, deception, and hubris)?

How do you protect your innovation from competition?

Describe how employees are committed to driving the interests of the company and encouraged to introducing new business opportunities?

***Reconfiguring capabilities:***

How do you ensure integration, develop the organisations' organizing skills and encourage open innovation?

Describe the processes for knowledge transfer and know-how integration?

Would you describe the company's decision-making centralized or de-centralized?

How do you ensure strategic alignment following a decision for innovation? Describe the process for example from the perspective of selecting the key activities, customer segments, resources, cost structure and revenue streams.