# Master of Information Systems – Digital Business Systems

# Leveraging Dynamic Capabilities for Digital Platform Innovation in the Private Equity Industry

Helene Varming, 869032

A report submitted in partial fulfillment of the requirement for the degree of Master of Information Systems – Digital Business Systems

Supervisor: Benjamin Eaton

Restricted: ☐ Yes ■ No

Kristiania University College
Prinsens Gate 7-9
0152 Oslo
Norway

# Abstract

**Purpose:** Digital platforms have out-spun as a powerful tool of digital innovation in today's competitive business environment. It is reported to disrupt nearly all industries – and to be an enabler of value creation and co-creation between both companies and industries. This master thesis was conducted with the purpose of building an understanding of how a private equity firm can leverage its dynamic capabilities to build and govern a digital platform. Although prior research argues the private equity industry to be a traditional industry with a more conservative approach to digital transformation, it is nevertheless bound to a shift toward digital innovations, such as digital platforms.

**Methodology:** This master thesis followed a qualitative research method with semi-structured interviews. The research objectives are carried out with an in-depth investigation of the dynamic capabilities theory in conjunction with the four phases of the platform lifecycles.

**Results and analysis:** The results and analysis found that through the dynamic capabilities of sensing, seizing, and transforming, the private equity firm was able to build, govern, and expand its digital platform regardless of its nearly non-existing experience in this field. This study demonstrates that when combined with the four phases of a digital platform life cycle, the theory of dynamic capabilities serves as a valuable framework for companies looking to broaden their exposure to new technological opportunities. The dynamic capabilities theory is beneficial for accelerating and capturing value through digital innovation. Based on the findings in this master thesis, it can be used as an enabler for sustaining competitive advantage.



Keywords: digital platforms, dynamic capabilities, digital innovation, private equity

## Acknowledgements

As this master thesis concludes my studies at Kristiania University College, I want to express my gratitude to the faculty for two years filled with both personal and intellectual growth. I am well-dressed to embark on a new area of my professional career, thanks to Kristiania's dedicated and highly knowledgeable professors. Despite three lockdowns and a limited number of in-person lectures, my determined and initiative-rich fellow students have allowed me to form life-long friendships, for which I am grateful.

I would like to thank my supervisor Benjamin Eaton for his valuable insights and for making every meeting fun and full of learnings. I feel fortunate to have had the opportunity to learn from such a knowledgeable researcher.

Finally, I would like to express my gratitude to my family and friends for their patience and support and my coworkers' constant encouragement, help, and support.

I certify that the work presented in the thesis is my own unless referenced.

Signature: 

Date: 25.05.2022

Total number of words: 20 025

# Table of Contents

# 1. Introduction

The rapid digitization of innovation processes has led both companies and scholars to explore the field of new technological constructs to stay competitive (Nambisan et al. 2017; Amit and Zott 2012). Digital innovation is described as "the use of digital technology during the process of innovating" (Nambisan et al. 2017, 223), and the outcome can be new products or services (Hinings, Gegenhuber, and Greenwood 2018). Gawer (2021) argues that the power of digitalization creates economic forces that make it easier for businesses to expand their reach. Firms that can acquire and aggregate data from diverse sectors might find and exploit new types of synergies, making market entry easier (Gawer 2021). In conjunction with technology, innovation is an area with rapid evolution and disruption; both are hot topics for researchers to indulge in (Hinings, Gegenhuber, and Greenwood 2018; Kahn 2018; Nambisan et al. 2017; Nylén and Holmström 2015).

As a result of the fast-paced digitalization – companies are faced with competitive pressures to innovate and engage in out-of-the-box thinking (Törmer 2018). The consulting firm Accenture (2018, 1) claimed that "digital platforms will define the winners and losers in the new economy." This bold statement is justified with the argument that new business models and strategies have given companies a powerful toolset to develop and govern a digital platform with influential value-add services (Accenture 2018). A firm body of research argues that digital platforms have become necessary to uphold competitive advantage and act as a foundation for value creation (Gawer 2021; Accenture 2018; Helfat and Raubitschek 2018).

Digital platforms are becoming increasingly important in the business models of the world's major corporations, altering traditional responsibilities in areas such as employment, productivity, and innovation (Bonina et al. 2021, 870). Examples such as Microsoft, Apple, Amazon, and Alphabet – all platform companies – were "four of the world's largest companies in terms of market value in late 2018" (Cusumano, Gawer, and Yoffie 2019; Bonina et al. 2021, 870).

Powerful platforms have altered global reach, and digital natives like Alibaba and Amazon have even emerged as market capitalizations (Bughin, Catlin, and Dietz 2019). It is argued in research that the effect and proven value creation of digital platforms pose several complex considerations for company leaders and industry influencers; is *now* the time to follow, join forces, or not play at all? (Bughin, Catlin, and Dietz 2019). As platforms are penetrating

industries, transforming them, and facilitating cooperation and value creation between companies, the posed considerations should be straightforward.

## 1.1 Research Topic

As stated above, digital platforms have out-spun as a powerful tool of digital innovation in today's competitive business environment. It is reported to disrupt nearly all industries – and to be an enabler of value creation and co-creation between both companies and industries. For nearly two decades, scholars have indulged in research on the construct.

First coined by scholars Teece, Pisano, and Shuen (1997), the theory of dynamic capabilities has been widely explored in research for more than two decades (Wang and Ahmed 2007; Eisenhardt and Martin 2000; Easterby-Smith, Lyles, and Peteraf 2009; Helfat and Raubitschek 2018). The theory belongs to the research field of strategic management (Teece, Pisano, and Shuen 1997) and is closely related to the resource-based view (RBV) of the firm (Easterby-Smith, Lyles, and Peteraf 2009). Like RBV, the theory of dynamic capabilities similarly focuses on creating a sustainable competitive advantage for firms but differs in its emphasis on dynamics (Easterby-Smith, Lyles, and Peteraf 2009).

Dynamic capabilities can be described as "a set of specific and identifiable processes such as product development, strategic decision making, and alliancing" (Teece 2012, 1395), and these processes can be categorized into three categories of activities: sensing, seizing, and transforming (Teece 2012).

It has been reported in research that "under the right circumstances, companies of any size can grow to become platform leaders" (Gawer and Cusumano 2012, 68), and today, many firms are "attempting to position themselves as a hub within a new or existing ecosystem" (Teece 2017, 3). Research argues that a robust set of dynamic capabilities are relevant for platform governance, as both digital platforms and associated ecosystems have their independent dynamics (Teece 2017). Teece's (2017) conceptualization of the theory of dynamic capabilities helps determine which organizational activities are necessary to establish, develop, and govern a digital platform. As digital platforms are part of a high-velocity environment where the business climate can be blurring and the technological development is rapid, the theory's emphasis on 'dynamic' is appropriate for analyzing a firm's capabilities to succeed with the platform strategy (Eisenhardt and Martin 2000; Teece 2017). Due to the abovementioned

arguments, I find the theory fitting to analyze how firms leverage their dynamic capabilities when establishing a digital platform.

The private equity industry substantially contributes to the global economy through its medium- to long-term investments in "unquoted companies in return for equity stakes" (Arundale and Mason 2020, 193; Axelson, Strömberg, and Weisbach 2009).

The private equity industry consists of general partners (GPs) that share the same organizational structure (Axelson, Strömberg, and Weisbach 2009). In short, the funds are often structured as limited partnerships, with limited partners (LPs) supplying the majority of the money and general partners (GPs) making investment decisions and collecting a large portion of the returns (Axelson, Strömberg, and Weisbach 2009). The industry has successfully survived previous economic downturns, and it was well-positioned to handle a worldwide tragedy like the coronavirus (Arundale and Mason 2020). However, during the global pandemic that emerged in 2020, many GPs have been canceling deals and held back on capital due to the uncertain market – and like the rest of the world, fund managers were sent home to work (Arundale and Mason 2020). This posed new opportunities for an industry that previously relied on its conservative approach to 'doing business as usual'; face-to-face meetings between LPs and GPs to raise or invest capital and "manual processes to analyze deals" (Geminder and Kollin 2018, 1).

This thesis considers the field of digital platforms and dynamic capabilities as the main subject of its study – and seeks to investigate the abilities of a Nordic private equity firm to establish and govern a digital platform.

To my knowledge, IS research has failed to yield this particular industry enough attention; only a few studies on the broader topic of digital platform innovation have been studied in private equity and venture capital (Arnestrand and Lindblom 2021; Arundale and Mason 2020; Vermeulen et al. 2020).

## 1.2 Aim and Objectives

This master thesis aims to build an understanding of how companies in the private equity industry were able to establish and govern a digital platform and the dynamic capabilities needed to do so. The research objectives will be carried out with an in-depth investigation of the dynamic capabilities theory in conjunction with the four phases of the platform lifecycles by Teece (2017), inspired by the work of Moore (1993).

### 1.2.1 Research Question

The research question below compressed the overall goal down to a feasible research direction The chosen research question is a result from the previously identified gap in the literature and the urge to contribute to heighten the body of literature on the subject.

**RQ:** *How can a private equity firm leverage its dynamic capabilities to build a digital platform?*

## 1.3 Thesis Outline

In the following, an outline of the thesis structure will be presented.

**Chapter 1: Introduction**

This section is intended to give the reader an overview of the field of study. Firstly, the introduction and background to the research topic were presented before the thesis' aims and objectives were outlined. Lastly, the research question was raised.

**Chapter 2: Literature Review**

This section investigates the current body of literature found within academia and the industry regarding the broader topic(s) of digital platforms and their intake in the financial sector, in addition to the concept of digital innovation.

**Chapter: 3: Theoretical Framework**

This section will describe and outline the theory of dynamic capabilities, its history, and its evolution in research. In addition, the four phases of the platform lifecycle are described. At the end of this chapter, the theoretical framework is presented in the form of a table depicting the platform lifecycle phases.

**Chapter 4: Method**

The method section presents the research methodology of this master thesis. The considerations and logic behind the choices will be discussed. The strengths, weaknesses, and limitations of research methods in general will be described before the choice of research method is presented.

In addition, this section will review the design and implementation process applied in this master thesis. It contains a discussion of the research design and strategy and a review of the design implementation, including case selection, data collection, and analysis.

**Chapter 5: Results**

The results section presents the overall findings retrieved from the data collection process. The chapter is structured and categorized with the help of the theoretical framework described in chapter 3.

**Chapter 6: Discussion**

The 6th chapter will discuss the results from section 5. The discussion builds on the theoretical framework and seeks to analyze and interpret the results to be able to answer the research question presented in section 1. In addition, research implications will be outlined.

**Chapter 7: Conclusion**

Finally, concluding remarks will be presented, and suggested directions for future research will be summarized.

## 1.4 Summary

As digital platforms are becoming increasingly important in the business models of the world's major corporations, their relation to the theory of dynamic capabilities was argued and presented as the general topics of this thesis. The background, context, and research gap were presented before introducing the research question.

# 2. Literature Review

This section investigates the current body of knowledge found within academia regarding the broader topic of digital platforms and their effect on transforming industries. A systematic literature review will be conducted to secure an organized and transparent review of prior knowledge in the field.

Since the concept of innovation somewhat serves as a backdrop to the ability to develop a platform, I will first describe and present the dimensions of digital innovation before I review the literature on digital platforms and how it has affected the financial industry.

Thus, the following section is structured as follows. First, the chosen method of a systematic literature review is presented. Then, a brief introduction to the concept of (digital) innovation is described before the architecture and artifacts of digital platforms are shown and structured with the help of scholars de Reuver, Sørensen, and Basole (2018), who argue a three-step approach when investigating digital platforms. After this, I will review existing literature on digital platforms within the financial sector.

## 2.1 Review Approach

In this master thesis, the method of a systematic literature review is applied. The method is a well-defined and reliable method used amongst information system (IS) scholars, as it creates a firm foundation for advancing knowledge while ensuring the author's bias is eliminated (Kitchenham and Charters 2007). Webster and Watson (2002) argue that a complete and efficient literature review consists of a broad and diverse collection of articles gathered from multiple sources. The method allows the researcher to identify knowledge gaps within the selected area of interest (Kitchenham and Charters 2007).

The systematic literature review method consists of three essential stages to be followed: planning the review, conducting the review, and reporting the review (Kitchenham and Charters 2007). This systematic literature review will follow all of the previously mentioned stages.

The introductory section of this master thesis specified the need for a literature review regarding the broader topic of digital platforms and their effect on transforming business with innovation. The period of publishing was set to include research from 2010 to 2022. Although the publishing period might seem random, the systematic literature review needed to include early research to see how both digital innovations have evolved from an analog process into a digital process and how the two are still widely connected. In addition, as innovation has played an essential part in the development of digital platforms, I found it necessary to analyze both early and recent research on the matter. For context, it was essential to investigate digital platforms' governance, architecture, and dimensions to explore them with help from the theoretical framework of dynamic capabilities. In conjunction with technology, innovation is an area with rapid evolution and disruption; both are hot topics for researchers to indulge in. Only relevant research was reviewed, but all findings were carefully evaluated.

To narrow the literature search and ensure that the reviewed papers were in line with the general topic(s), a search string was determined, presented in Figure 1 below.

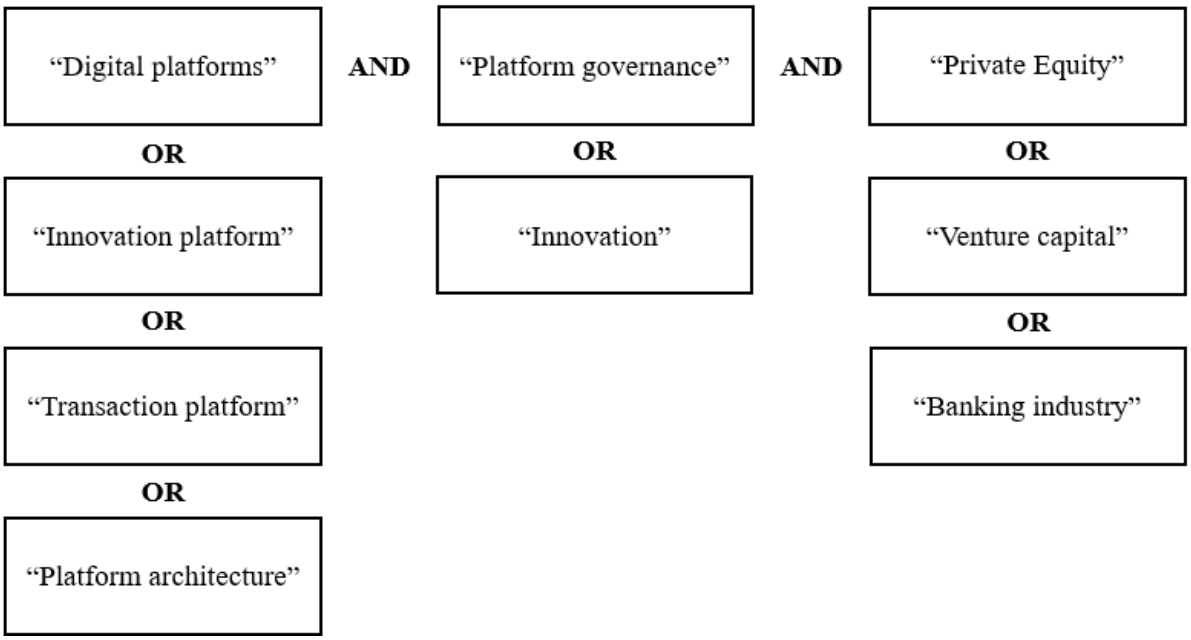


**Figure 1**: Search string based on the search structure by Webster and Watson (2002).

Relevant databases were identified for the search, and for this systematic literature review, the following databases were selected: Google Scholar, Elsevier ScienceDirect, and Oria. Table 1 displays the total results from the search.

| **Database** | **Search result** |
|---|---|
| Google Scholar | 1070 |
| Elsevier Science Direct | 3144 |
| Oria | 25 343 |
| **In total** | **29 557** |

**Table 1:** Total results from the literature search.

The results from the search were comprehensive, leaving it unattainable to review all of them as a whole. Thus, to further eliminate the search, I only choose to review and consider the articles that directly evolve the two general topics: digital platforms and their effect on the financial industry. In addition, I decided only to review open access articles. Of the retrieved articles, there are 24 journal articles, three book sections, one dissertation, and one conference proceedings. The articles stem from a broad and diverse search, and the results from the strategic search can be seen as a well-viewed search.

Table 2 below displays the reviewed articles.

| Nr. | Author | Year | Title | Outlet |
|---|---|---|---|---|
| 1. | Amit, R. Zott, C. | (2012) | Creating value through business model innovation. | (Journal) MIT Sloan Management Review. |
| 2. | Bonina, C., Koskinen, K., Eaton, B. D., Gawer, A. | (2021) | Digital platforms for development: Foundations and research agenda. | (Journal) Information Systems Journal. |
| 3. | Bughin, J., Catlin, T., Dietz, M. | (2019) | The right digital-platform strategy. | (Journal) McKinsey Quarterly. |
| 4. | Choudhary, P. K., Kaushik, A., Bharadwaj, S. S. | (2021) | Societal Digital Platforms: Architecture and Design. | (Journal) Vision. |
| 5. | Cusumano, M. A., Gawer, A., Yoffie, D. B. | (2019) | The business of platforms: Strategy in the age of digital competition, innovation, and power. | (Book) Harper Business. |
| 6. | De Reuver, M., Sørensen, C., Basole, R. C. | (2018) | The digital platform: a research agenda. | (Journal) Journal of Information Technology. |
| 7. | Eaton, B. D. | (2012) | The Dynamics of Digital Platform Innovation: Unfolding the Paradox of Control and Generativity in Apple's iOS. | (Dissertation) The London School of Economics and Political Science. |
| 8. | Gatautis, R. | (2017) | The Rise of the Platforms: Business Model Innovation Perspectives. | (Journal) Engineering Economics. |
| 9. | Gawer, A. | (2011) | Platforms, Markets and Innovation. | (Book) Edward Elgar Publishing. |
| 10. | Gawer, A. | (2021) | Digital platforms' boundaries: The interplay of firm scope, platform sides, and digital interfaces. | (Journal) Long Range Planning. |

| | | | | |
|---|---|---|---|---|
| 11. | Gimpel, H., Rau, D., Röglinger, M. | (2018) | Understanding FinTech start-ups – a taxonomy of consumer-oriented service offerings. | (Journal) Electronic Markets. |
| 12. | Hein, A., Schreieck, M., Riasanow, T., Setzke, D. S., Wiesche, M., Böhm, M., Krcmar, H. | (2020) | Digital platform ecosystems. | (Journal) Electronic Markets. |
| 13. | Kazan, E., Tan, C-W., Lim, E. T.K., Sørensen, C., Damsgaard, J. | (2018) | Disentangling Digital Platform Competition: The Case of UK Mobile Payment Platforms. | (Journal) Journal of Management Information Systems. |
| 14. | Khan, K. B. | (2018) | Understanding innovation. | (Journal) Business Horizons. |
| 15. | Khan, M. Z., Khan, Z. U., Hameed, A., Zada, S. S. | (2021) | On the upside or flipside: Where is venture capital positioned in the era of digital disruptions? | (Journal) Technology in Society. |
| 16. | Kim, J. | (2018) | Market entry strategy for a digital platform provider. | (Journal) Baltic Journal of Management. |
| 17. | Lerner, J., Sorensen, M., Strömberg, P. | (2011) | Private Equity and Long-Run Investment: The Case of Innovation. | (Journal) The Journal of Finance. |
| 18. | Manser Payne, E. H., Peltier, J., Barger, V. A. | (2021) | Enhancing the value co-creation process: artificial intelligence and mobile banking service platforms. | (Journal) Journal of Research in Interactive Marketing. |
| 19. | Mattila, J., Seppala, T., Lahteenmaki, I. | (2018) | Who Holds the Reins? – Banks in the Crossfire of Global Platformsl. | (Journal) SSRN Scholarly Paper. |
| 20. | Nambisan, S., Lyytinen, K., Majchrzak, Ann., Song, M. | (2017) | Digital Innovation Management: Reinventing Innovation Management Research in a Digital World. | (Journal) MIS Quarterly. |
| 21. | Nersisyan, Y., Wray, L. R. | (2010) | The global financial crisis and the shift to shadow banking. | (Journal) European Journal of Economics and |

| | | | | |
|---|---|---|---|---|
| | | | | Economic Policies: Intervention. |
| 22. | Nylén, D., Holmström, J. | (2015) | Digital innovation strategy: A framework for diagnosing and improving digital product and service innovation. | (Journal) Business Horizons. |
| 23. | Omarini, A. | (2017) | The Digital Transformation in Banking and The Role of FinTechs in the New Financial Intermediation Scenario. | (Journal) International Journal of Finance, Economics and Trade. |
| 24. | Prado, T. S., Bauer, J. M. | (2022) | Big Tech Platform Acquisitions of Start-ups and Venture Capital Funding for Innovation. | (Journal) Information Economics and Policy. |
| 25. | Schreieck, M., Wiesche, M. | (2017) | How established companies leverage IT platforms for value co-creation - insights from banking. | (Conference) Proceedings of the 25th European Conference on Information Systems (ECIS) |
| 26. | Teece, D. J. | (2017) | Dynamic Capabilities and (Digital) Platform Lifecycles. | (Book section) Entrepreneurship, Innovation, and Platforms. |
| 27. | Tewari, A., Gabarro, J., Sole, J., Lapouble, B., Montull, L. | (2020) | Artificial Intelligence Based Decision Making for Venture Capital Platform. | (Journal) Decision Support Systems X: Cognitive Decision Support Systems and Technologies. |
| 28. | Trabucchi, D., Buganza, T. | (2020) | Fostering digital platform innovation: From two to multi-sided platforms. | (Journal) Creativity and Innovation Management. |
| 29. | Vermeulen, E., Fenwick, M., Bajulaiye, O., Skultétyová, I. | (2020) | Digital transformation in the hedge fund and private equity industry. | (Journal) Digital transformation in the hedge fund and private equity industry. |

***Table 2:*** *Overview of the reviewed articles.*

The following Table 3 displays the reviewed articles according to the topic they are concerning.

| Concepts | Featured in paper |
|---|---|
| (Digital) Innovation (n=4) | Amit & Zott (2012); Khan (2018); Nambisan, Lyytinen, and Majchrzak (2017); Nylén & Holmström (2015). |
| Digital platforms (n=13) | Bonina, Koskinen, Eaton, and Gawer (2021); Bughin, Catlin, and Dietz (2019); Choudhary, Kaushik, and Bharadwaj (2021); Cusumano, Gawer, and Yoffie (2019); De Reuver, Sørensen, Basole (2018); Eaton (2012); Gatautis (2017); Gawer (2011; 2021); Hein et al. (2020); Kim (2018); Teece (2017); Trabuuchi & Buganza (2020). |
| Digital Platforms in the Financial Industry (n=12) | Gimpel, Rau, and Röglinger (2018); Kazan et al. (2018); Khan et al. (2021); Lerner, Sørensen, Strömberg (2011); Manser-Payne, Peltier, Barger (2021); Mattila, Seppala, Lahteenmaki (2018); Nersisyan & Wray (2010); Omarini (2017); Prado & Bauer (2022); Schreieck & Wiesche (2017); Tewari et al. (2020); Vermeulen et al. (2020). |

***Table 3:*** *The reviewed articles according to the overarching topics.*

## 2.2 Innovation

Scholar Kahn (2018) argues that even though the word 'innovation' has become a pervasive term, many organizations still seem to find innovation elusive. The scholar considers innovation to be three things: "innovation is an outcome, innovation is a process, and innovation is a mindset" (Kahn 2018, 453). To avoid misunderstandings, Kahn (2018, 454–57) demonstrates that innovation as an outcome can be:

- product innovation, i.e., new products or new services, or new programs
- process innovation, i.e., changes in methodology or process to achieve efficiency, increased income or decreased cost
- marketing innovation, i.e., connecting with end customers and consumers in new ways
- business model innovation as an attempt to change the industry, i.e., industry model innovation, revenue model innovation
- supply chain innovation, i.e., to change the supply chain technology, process, or network to enhance new value creation
- organizational innovation to address changes to the organization

When describing innovation as a process, Kahn (2018) explains that innovation is more than creating something new; the delivery phase is required. Without it, the organization has not succeeded and achieved innovation. One process model for innovation can be the three phases model: discover, develop, and deliver (Kahn 2018). Finally, innovation as a mindset cannot be overlooked, as "mindset addresses the internalization of innovation by individual members of the organization and advancement of a supportive culture throughout the organization" (Kahn 2018, 458).

According to scholars Amit and Zott (2012), companies make considerable efforts to innovate their products and hope to see increased growth while maintaining and improving profit margins. Thus, we see innovation everywhere, even in corporate positions, i.e., 'Chief Innovation Officer' (Kahn 2018). The term is included in an organization's vision, mission, and objective statements, while politicians use it regularly when publicly speaking (Kahn 2018). These corporate positions are inevitable and reasonable, as the innovation process is time-consuming and expensive to go through (Amit and Zott 2012). However, in a study done by the Economist Intelligence Unit, it was found that when asked, more than 54 percent of 4,000 senior managers "favored new business models over new products and services as a source of future competitive advantage" (Amit and Zott 2012, 36). Scholar Kahn (2018) argues that a common misunderstanding is a belief that innovation must entail producing something new and radical, and it is not. He further states that "successful organizations understand that innovation falls along a continuum, ranging from minor incremental changes to major radical innovations; innovation is not a binary phenomenon" (Kahn 2018, 454).

### 2.2.1 Digital Innovation

Digital innovation is by scholars Nambisan et al. (2017, 223) described as "the use of digital technology during the process of innovating." One can also use the term when describing the outcome of innovation. Research has highlighted the benefits of digital technology as an enabler of innovation types that are uniquely apart from the analogy innovation process (Nylén and Holmström 2015). The transition from analog to digital innovation is a rare opportunity to indulge in research and business (Nambisan et al. 2017). Digital innovation is a high priority for business managers as the nature of digital innovation processes forces organizations "to challenge prior assumptions about their product and service portfolio, their digital environment, and ways of organizing innovation work" (Nylén and Holmström 2015, 57). Ultimately,

business owners seize digital innovation as the pathway to increased profit and a heightened competitive advantage (Nylén and Holmström 2015; Nambisan et al. 2017).

As digital technology has become an integral part of our lives, it has also become increasingly important to firms in achieving their business goals (Nylén and Holmström 2015). Given the central role of technology in the "radical restructuring of several industries" (Nylén and Holmström 2015, 58), the digitalization journey of firms has "led scholars to question the explanatory power and usefulness of extant innovation theory and related organizational scholarship" (Nambisan et al. 2017, 223). Addressing this interest, digital innovation has been paramount for scholars to indulge in.

According to scholars Nylén and Holmström (2015, 59), "digital technology generates highly complex innovation challenges. We have seen how firms that failed to address them appropriately suffered major consequences". The scholars further argue that when engaging in digital innovation, one key aspect of challenges is the rapid pace of digital technologies (Nylén and Holmström 2015). Other challenges are concretized as governing the adoption phase when introducing new technology, new hires of operating technology staff with a technology background. They govern the adoption of products and services (Nylén and Holmström 2015). Due to the abovementioned challenges, Nylén and Holmström (2015) have suggested an organizational framework for a digital innovation strategy to eliminate uncertainties that might occur within three areas; the firm's products, its digital environment, and executive properties.

## 2.3 Digital Platforms

Previous research has emphasized that "digital platforms are a challenging research object because of their distributed nature and intertwinement with institutions, markets, and technologies" (de Reuver, Sørensen, and Basole 2018, 124). Scholar de Reuver and colleagues (2018, 128) recommend that when investigating digital platforms, three essential steps are necessary:

1. Draw on previous research when defining digital platforms.
2. Identify the different units of analysis, including its boundary and elements that make up the digital platform.
3. Provide a specified view on whether the digital platform is technical or socio-technical in nature.

Following de Reuver and colleagues (2018) recommendation, I look to the reviewed literature to determine all three steps.

### 2.3.1 Defining Digital Platforms

While the scholarly literature lacks a proper definition of the concept, it is emphasized that digital platforms play a critical role in today's global economy and have enormous economic potential (Bonina et al. 2021). When defining and positioning digital platforms, Bonina et al. (2021, 871) argue that

*"digital platforms have three basic characteristics: they are technologically mediated, enable interaction between user groups, and allow those user groups to carry out defined tasks."*

When conceptualizing digital platforms, scholar de Reuver and colleagues (2018, 125) distinguish between non-digital platforms and digital platforms; non-digital platforms are a "stable core and a variable periphery." Through modularization, this conceptualization specifies options for distributed development and recombinant creativity (de Reuver, Sørensen, and Basole 2018). On the contrary, digital platforms "imply homogenization of data, editability, reprogrammability, distributedness and self-referentiality" (de Reuver, Sørensen, and Basole 2018, 126). These features indicate that digital platforms can lead to multiple inheritances, which means no single owner controls the platform core and dictates its design hierarchy (de Reuver, Sørensen, and Basole 2018).

To define the concept of digital platforms, we choose to use the following definition by Gartner: "a platform is a product that serves or enables other products or services" (Gartner n.d.).

### 2.3.2 Platform Architecture and Boundaries

When reviewing the different units of analysis, de Reuver and colleagues (2018, 128) argue that "due to the dynamic nature of digital platforms, the relevant unit of analysis for scholars shifts over time." Vertical scoping reviews at which level of technical architecture the digital platform is positioned. In contrast, horizontal scoping is present when the platform is "emerging for specific application categories such as payment, share economy, media, and health" (de Reuver, Sørensen, and Basole 2018, 129).

#### *Platform Business Model*

Before platform owners or business managers decide on the platform architecture and its boundaries, it is essential to determine the suitable platform business model (Gawer 2021). The

importance of creating an innovative business model in the preliminary stages of creating a digital platform is emphasized by scholar Gatautis (2017, 585–86), who notes that while the interest in a business to develop or use platforms is increasingly high, "[…] platform use for business model innovations remains relatively unexplored" in literature.

Teece (2017) considers the Profiting From Innovation (PFI) model as suiting when developing an innovative business model around a specific technology. A vital necessity for profiting from an innovation, Teece (2017) notes, is to consider the appropriability regime that applies to the specified innovation. This step is called a fundamental requirement in the PFI model (Teece 2017). Unless the platform manager creates strong protection against imitation, there is a risk of losing potential future streams of income (Teece 2017). The weaker the appropriability regime, the more the innovator must rely on control of complementary assets to make a profit (Teece 2017). When appropriability is high, the innovator is more likely to be able to rely on the ecosystem's complementors safely (Teece 2017).

Gatautis (2017) urges platform owners to approach the business model pragmatically: start with the who, the what, the how, and what's in it. After this, it is seen as beneficial to dig deeper into nine key components when creating an innovative platform business model, briefly noted in the following: segment, value proposition, delivery channels, relationship, key resources, key activities, key partnership, revenues, and cost (Gatautis 2017). While creating a solid and innovative business model is emphasized by research to be invaluable to creating a digital platform and maintaining a competitive advantage (Teece 2017; Gatautis 2017), it has been reported that the average lifespan of a business model has fallen from 15 years to less than 5 (Gatautis 2017). Thus, companies should create agile and adaptable business models to function in platforms-based global value chains and value systems (Gatautis 2017).

### *Platform Types*

Scholar Gawer (2021) builds on Cusumano and colleagues (2019) when distinguishing between the two types of platforms: transaction and innovation. While the two might share the same building block as a value-creating mechanism (Hein et al. 2020), they have different purposes, here summarized by Bonina and colleagues (2021, 872): "transaction platforms matches users or user groups, and the value for a user increases with the number of users in a user group."

Innovation platforms enable third-party developers to create applications on top of the platform core; hence, innovations can be accelerated (Bonina et al. 2021; Gawer 2021). A hybrid of the

two platform types combines the two characteristics (Gawer 2021; Bonina et al. 2021). Examples of the three basic digital platforms are visualized below, building a figure from the research of Gawer (2021, 8) and Cusumano and colleagues (2019).

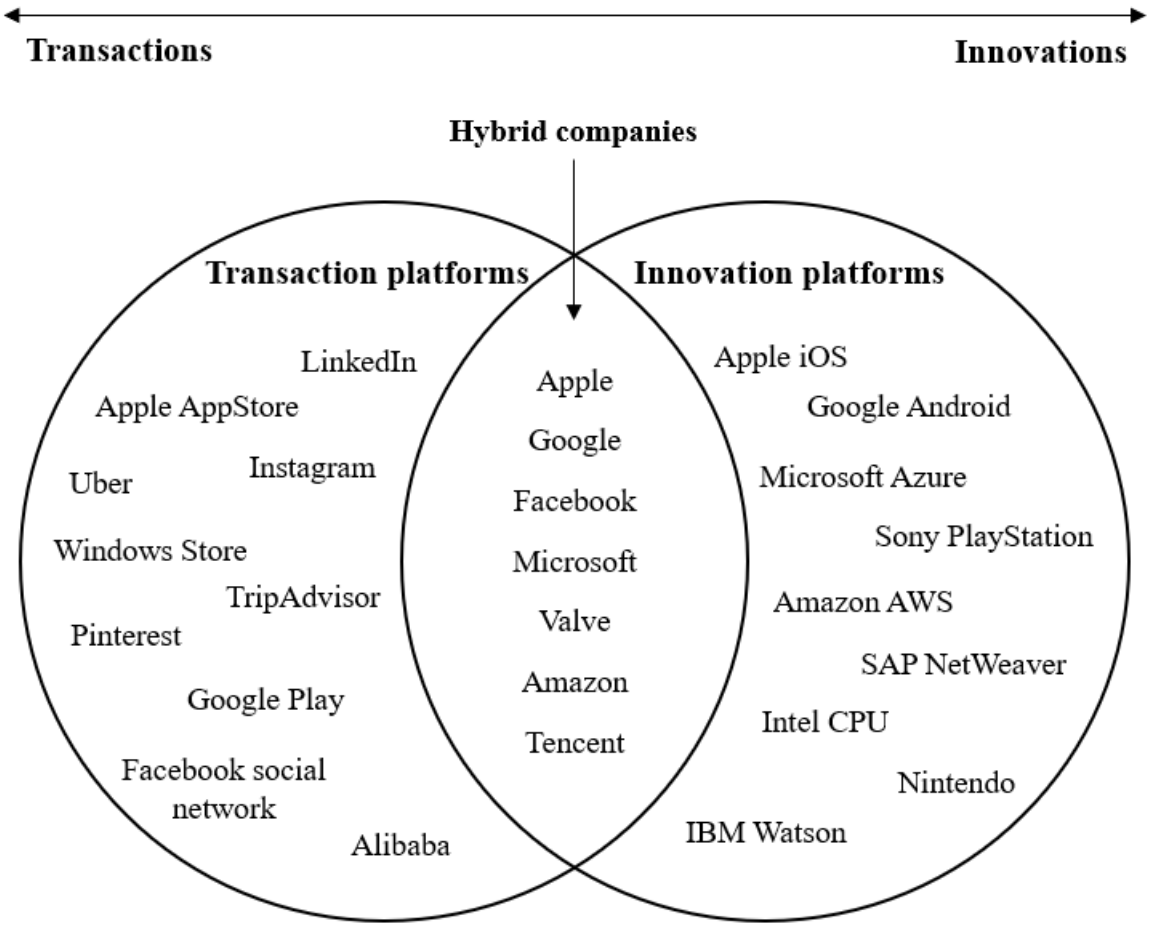


***Figure 2:*** *Platform types by Gawer (2021, 8) and Cusumano, Gawer, and Yoffie (2019).*

As referred to in Bonina et al. (2021, 875), Gawer (2011, 54) argues that "innovation platforms act as foundations upon which other firms can build complementary products, services or technologies." The innovation lies within the platform's technical architecture, which contains building blocks, also referred to as modules, that can be accessed and combined by developers (Bonina et al. 2021). Thus, innovation platforms can be seen as a "technological foundation" to which organizations or individuals can continue developing new building blocks and innovations (Gawer 2021, 7).

***Platform Governance***

Kim (2018) argue that platform governance is increasingly becoming more critical, especially if the platform is open. An 'open' platform stimulates adoption and growth and essentially

consists of open technology placed in a public domain and is accessible to other developers and platform owners (Eaton 2012). Note that open platforms are equivalent to an innovation platform (Bonina et al. 2021). Gawer (2021, 4) explain that

*"when digital platform firms open up or 'expose' their APIs, they effectively share with complementors codified technical instructions for how to connect complementary innovations with the platform; this therefore increases complementors' capability to develop platform-compatible innovations, hence extending the functionalities of the platform."*

While it may be perceived as a loss of control to open up or expose an API, it does not necessarily have to be; the same API can be used to keep control of the platform by capturing and controlling user data, for example (Gawer 2021). This is due to digital interfaces allowing a two-way data flow between the platform and external developers (Gawer 2021). To exemplify, mobile operating systems like well-known tech players such as Apple iOS and Android's functionality is built upon open APIs by a "platform ecosystem of third-party developers to build and innovate apps as services" (Bonina et al. 2021, 876). Using network effects (the platform's value increases with the number of users) and the power of platforms, many start-ups have been able to scale rapidly and spread globally, transforming from enterprises with linear and uncomplicated business models into tech giants (Trabucchi and Buganza 2020). To emphasize the importance of optimizing for openness on digital platforms, scholar Gatautis (2017) argue that, amongst others, the failure to maximize openness is one of the key factors for why platform business models fail.

Teece (2017) emphasizes speed of execution as a critical factor in enhancing or capturing competitive advantage during the process of platform innovation. However, the rapid pace of digital platform development must go hand-in-hand with quality governance to ensure good value creation and capture (Choudhary, Kaushik, and Bharadwaj 2021). When the attributes of an innovation platform are combined, value is created through the plethora of new services created by third external developers as platform complements (Bonina et al. 2021). Research argues that it is key to have an open platform to generate value on the digital platform, so third-party developers can be provided with the capabilities they need to innovate (Bonina et al. 2021). Capturing monetized value is typically done by charging third-party developers for access to the platform resources or direct selling or renting services to consumers (Bonina et al. 2021). When the platform is free, advertising can also be employed to monetize it (e.g., Google Android) (Bonina et al. 2021).

***Digital Platforms Increase Firm's Competitive Advantage***

Naturally, platforms compete, and ecosystems based on various platforms are frequently partially overlapping as complementary suppliers use multiple platforms (de Reuver, Sørensen, and Basole 2018). While the journey of digital platforms began with digital technologies that allowed businesses to sell their goods and services, i.e., Amazon's AWS (Amazon Web Services) and Apple's Appstore, it is nowadays not only limited to a single industry or business (Gatautis 2017). Digital platforms are being used across multiple industries to facilitate collaboration and value creation between diverse businesses and industries (Gatautis 2017), and is by research reported to be an enabler for sustainable competitive advantage (de Reuver, Sørensen, and Basole 2018). As referred to in Kim (2018, 390), "20 among the top 25 companies have wholly or partly adopted a platform business model". Given the pervasive presence of platforms, a vast majority of incumbent companies have decided that instead of developing a digital platform on their own, they'd rather join industry platforms run by third parties or partnering with global platforms already running – i.e., an innovation platform (Bughin, Catlin, and Dietz 2019).

Hein and colleagues (2020) argue that one of the unique obstacles for emerging digital platforms positioned in the preliminary phase is the 'chicken-and-egg problem': the platform needs both the complementor and consumer sides to offer a legitimate value proposition, but neither side is ready to join unless the other side is populated.

### 2.3.3 Technical and Socio-Technical Affiliation

De Reuver and colleagues (2018) argue explicitly that scholars should determine whether they refer to platforms as technical or sociotechnical concepts. A technical view of a digital platform is described as "an extensible codebase to which complementary third-party modules can be added," while the socio-technical digital platforms are "technical elements (of software and hardware) and associated organizational processes and standards" (de Reuver, Sørensen, and Basole 2018, 127). Hence, the socio-technical perspective zoom in on how the "platform owners integrate and govern an ecosystem of actors" (Hein et al. 2020, 89), and this can affect the organizational structures (Bonina et al. 2021) or the technical elements (de Reuver, Sørensen, and Basole 2018).

Choosing a technical or socio-technical affiliation is deemed as an important step in the platform strategy (Choudhary, Kaushik, and Bharadwaj 2021); the platform owner can restrict the platform and ecosystem to internal use within the company or "open the ecosystem to take

advantage of the innovation capabilities of external complementors that provide value-adding services", depending on the openness of the interfaces (Hein et al. 2020, 89).

## 2.4 Digital Platforms in the Financial Industry

As previously mentioned, digital platforms are reported to disrupt nearly all industries – and to be an enabler of value creation and co-creation between both companies and industries (de Reuver, Sørensen, and Basole 2018). In this master thesis, I refer to the financial sector to include industries such as banks, and investment capital houses, like private equity and venture capital. Real estate brokers, mortgage lenders, consumer finance companies, and real estate investment trusts (REITs) are excluded from this range. This section investigates how digital platforms have impacted the financial industry, more specifically, the banking industry, the venture capital industry, and lastly, the private equity industry.

According to studies, the banking industry has long been a highly regulated industry in which technology alone has not been sufficient to revolutionize the industry's operating systems (Mattila, Seppala, and Lahteenmaki 2018). However, after the worst economic crisis since 1929 surprised the world with the 2008 financial crisis (Nersisyan and Wray 2010), the conservative banking industry saw a shift towards digital disruption and a rapid introduction of innovation (de Reuver, Sørensen, and Basole 2018). Although one might assume that the term 'FinTech,' an abbreviation of the word 'financial technology,' would be reasonably new considering the slow technological movement in the financial industry, the term was first used in the early 1990s (Gimpel, Rau, and Röglinger 2018). Research argues that "generally, FinTech is referred to as innovative and personalized financial services and products" (Gimpel, Rau, and Röglinger 2018, 247).

The widely held belief in the financial industry is that digitization and its integrational development will occur on bank platforms (Mattila, Seppala, and Lahteenmaki 2018). Research report that the introduction of digital platforms in the banking business is "transforming the way customers do banking, charge market expectations, and transform the model of financial intermediation" (Omarini 2017, 6). For example, since its inception to the market, mobile banking has transformed the customer experience – leaving customers to do their private financial services from their phones instead of turning to brick-and-mortar banks with face-to-face interactions (Manser Payne, Peltier, and Barger 2021).

In a more recent study by scholars Kazan, Tan, Lim, Sørensen, and Damsgaard (2018, 182), the authors investigated "how digital financial services, such as mobile payments, leverage platform design to revolutionize their strategies within a regulated market environment." The key findings from Kazan and colleagues (2018, 214) study were that

*"the competitiveness of digital platforms is dictated by their competitive attributes, as derived from firm-specific resources and capabilities, along the two focal dimensions of value creation and delivery architectures."*

With digital banking platforms, end-users are now offered a transparent, easy-to-use, and specialized approach to their financials (Omarini 2017). At its core, digital platforms serve an enormous potential benefit for value co-creation; the end-users demand innovative digital services from their banks, and the banks get to respond by extending their digital eco-system of services with strategic partnerships and possible increase their competitive advantage (Schreieck and Wiesche 2017; Kazan et al. 2018; Omarini 2017).

As described above, the banking industry has successfully begun incorporating digital platforms into its business models and overcoming its traditional conservative appearance (Mattila, Seppala, and Lahteenmaki 2018). Venture capital engages in high-risk investments in small and medium-sized firms (SMEs) with tremendous growth potential and negligible or zeroes transaction history (Khan et al. 2021). This means that venture capitalists are willing to invest in a company, product, or idea before it has a proven success rate in the market. As a result of this business model, venture capitalists require greater due diligence and monitoring than other types of financing – as they constantly must analyze and interpret the market dimensions (Khan et al. 2021).

The use of digital platforms in venture capital has previously been assessed only to a very limited extent in prior research. Nevertheless, Tewari and colleagues (2020) note that digital platforms for venture capitalists are on the rise; implementing artificial intelligence on a platform to help the decision-making of investments. However, there exists an abundance of research on venture capital investing *in* digital platform services of multiple origins, i.e., see Prado and Bauer (2022, 2) whom "the effects of acquisitions by 'big tech' platforms, such as Google, Amazon, Apple, Facebook, and Microsoft, on venture capital funding to emerging companies." In their study, the authors analyze 392 acquisitions of promising FinTech start-ups done by the five US big techs from 2010 to 2020 (Prado and Bauer 2022).

While several studies have investigated digital platforms in consumer banking, a closer look at the literature on private equity, however, reveals a number of gaps and shortcomings. The literature search did not succeed in finding prior research concerning the use and implementation of digital platforms in the private equity industry. In their study on digital transformation within the venture capital and private equity industry, Vermeulen and colleagues (2020, 35) do emphasize that "private equity shares many distinctive features with the venture capital industry." Therefore, it is reasonable to assume that a large portion of the exposure to digital transformation *and* digital platforms are the same for the private equity industry (Vermeulen et al. 2020). It is also notable that the private equity industry is a far more traditional financial sector, which has been seen to have a more conservative approach to digital transformation and disruption (Vermeulen et al. 2020).

On another note, several studies have been conducted regarding digital transformation and innovation in private equity (Lerner, Sorensen, and Strömberg 2011; Vermeulen et al. 2020). Amongst the trends disrupting the private equity industry is the use of big data analytics and artificial intelligence in the early stage of the investment process, similar to the venture capital industry (Vermeulen et al. 2020). According to recent literature, the industry will see a heavy shift toward artificial intelligence to disrupt industry practices within the next five years (Vermeulen et al. 2020).

Considering the abovementioned look on existing literature in the field of private equity and its relation to digital introductions, this master thesis addresses the need for a study in this particular field, which is so far lacking in the scientific literature.

## 2.5 Summary

This section aimed to investigate the current body of literature found within academia and the industry regarding the broader topic(s) of digital platforms and their intake in the financial sector and the concept of digital innovation. The search string, databases, and retrieved articles were detailed, and the systematic literature review approach. The section described digital innovations and provided insight into how the construct has evolved. Contributory digital platforms were described, and their architecture and boundaries were presented according to the three essential steps by de Reuver and colleagues (2018).

By indulging in previous literature – both recent and more historical it became clear that there was a limited extent of studies in relation to understanding the dynamic capabilities needed to develop a digital platform in the private equity industry.

# 3. Theoretical Framework

A theoretical framework is helpful to guide the logic in a research article and presents the study in a well-defined and proven way (Simon and Goes 2011). In this master thesis, I draw on the work by Teece (1997; 2017) to analyze and discuss how a private equity firm can leverage its dynamic capabilities to establish and govern a digital platform.

The section is structured as follows. Firstly, I will present the theoretical considerations that were made before the theory of dynamic capabilities by Teece (1997; 2017) was determined. Then, I will present the theory of dynamic capabilities and the three unique capabilities defined by Teece (2017) and further developed activities by Helfat and Raubitschek (2018).

Further inspired by Teece (2017), I have adopted the four stages of a business ecosystem by Moore (1993) to improve the ability to investigate the essential aspects of dynamic capabilities and further detect the lifecycle of digital platforms. The platform lifecycle consists of four phases: birth, expansion, leadership, and self-renewal (Moore 1993, 77). As referred to in Teece (2017, 11), all ecosystems will go through phases of competitive strengths and weaknesses as the external conditions change, and hence, it is vital for the platform owner to manage these dynamics thereafter. The model by Moore (1993) "provides a useful structure for thinking about how platforms and dynamic capabilities interact" (Teece 2017, 12).

After the introduction of the four stages of a business ecosystem by Moore (1993), further developed as the platform lifecycle by Teece (2017), I will combine the dimensions with the findings on dynamic capabilities to put them in a table on which the analysis and discussion will be based.

## 3.1 Theoretical Considerations

When identifying a fitting theory to use as the theoretical lens in this master thesis, several theories with similarities to the theory of dynamic capabilities were addressed. More specifically, the theories of the resource-based view of the firm and absorptive capacity were explored as fitting theories for this master thesis.

The main arguments against using the mentioned theories are shortly outlined in the following. While the resource-based view (RBV) of firm theory theorizes that a firm's resources are distinctive, scarce, and indispensable and that obtaining them will provide the firm a competitive advantage, it does not address how the firm can continue to develop its resources during volatile periods (Easterby-Smith, Lyles, and Peteraf 2009).

The theory of absorptive capacity is argued to be modified by managerial activities that redefine and deploy the firm's knowledge-based assets if it is viewed as a dynamic capability, and hence, there is an "implicit consensus of the role and outcomes of absorptive capacity as a set of firm abilities to manage knowledge" (Zahra and George 2002, 186). However, as the theory's primary focus is to identify the ability of individual workers to exploit and utilize outside knowledge, as well as accumulate prior knowledge (Cohen and Levinthal 1990), I found this obstructive to examining how a firm can concretize and structure activities that increase their capabilities.

Teece (2017) emphasis on a firm's capabilities being *dynamic* is instrumental as it allows me to identify which activities are the most critical in creating a platform. To this end, Teece's (2017) conceptualization of the theory of dynamic capabilities is generative for grasping how firms can increase their competitive advantage, extend their digital ecosystem and co-create value with their customers through the process.

## 3.2 Dynamic Capabilities

In 1997, scholars Teece, Pisano, and Shuen published a research article (1997) that established the theory and notion of dynamic capabilities, which has since then widely been explored over the last 20 years (Easterby-Smith, Lyles, and Peteraf 2009; Teece 2018). The theory attracts attention from both management scholars and top management in several industries due to increased interest and curiosity in its close connection to the resource-based view (RBV) of the firm (Easterby-Smith, Lyles, and Peteraf 2009).

The theory of dynamic capabilities belongs to the research field of strategic management (Teece, Pisano, and Shuen 1997). As previously mentioned, the theory builds – and complements – upon the theory of the resource-based view of the firm (Easterby-Smith, Lyles, and Peteraf 2009; Wang and Ahmed 2007), which attempts to "understand how competitive advantage within firms is achieved and how that advantage might be sustained over time" (Eisenhardt and Martin 2000, 1105). While the resource-based view of the firm theorizes that

firms can achieve a long-term competitive advantage when they have resources that are valuable, rare, inimitable, and non-substitutable, this rationale does not explain how and why firms attain competitive advantage during volatile and rapid change (Eisenhardt and Martin 2000; Teece, Pisano, and Shuen 1997).

Like RBV, the theory of dynamic capabilities similarly focuses on creating a sustainable competitive advantage for firms but differs in its emphasis on dynamics (Easterby-Smith, Lyles, and Peteraf 2009). Because dynamic capabilities aren't bound to a specific line of business or industry, they may be applied across sectors and provide the foundations for long-term competitive advantage (Schoemaker, Heaton, and Teece 2018). Dynamic capabilities offer a source of persistent advantage in industries where the competitive landscape is constantly shifting (Eisenhardt and Martin 2000).

Eisenhardt and Martin (2000, 1105) describe dynamic capabilities as "a set of specific and identifiable processes such as product development, strategic decision making, and alliancing", and scholar Teece (2012, 1395; 1997) define the theory of dynamic capabilities as

*"higher-level competences that determine the firm's ability to integrate, build, and reconfigure internal and external resources/competences to address, and possibly shape, rapidly changing business environments."*

One of the founding authors of the theory, Teece (2012, 1398), informs that dynamic capabilities can be categorized into three categories of activities: "sensing, seizing, and transforming." He further emphasizes that the activities within these three clusters of capabilities are required in the top management's entrepreneurial and leadership skills in order to attain competitive advantage (Teece 2012). A dynamic set of capabilities are highly needed in the current fast-paced and ever-changing business environment, which demands rapid response to new technological opportunities (Teece 2012; 2018).

This master thesis will use Teece's (2012; 2017) definition of dynamic capabilities (sensing, seizing, and transforming) activities as overarching categories. However, as this thesis evolves around digital platforms, I will, in addition, rely on a more recent and closely aligned study done by Helfat and Raubitschek's (2018) for concrete and action-targeted steps of activities within the three overarching categories by Teece (2017). These are innovation and scanning (contributing to sensing and seizing capabilities), environmental scanning (contributing to sensing opportunities and threats), and integrative capabilities (contributing to sensing, seizing,

and reconfiguring activities) (Helfat and Raubitschek 2018). In their study, the scholars consider all abovementioned activities and capabilities reside at both the organizational and the individual level and that these capabilities help platform managers in making decisions in ever-changing and rapid environments (Helfat and Raubitschek 2018). A description of the three capabilities by Teece (2017; 2012) and the three activities by Helfat and Raubitschek (2018) is presented below.

### 3.2.1 Sensing Capabilities

As referred to in Helfat and Raubitschek (2018, 1395), scholar Teece (2017) notes that the capability to sense new opportunities in the business environment is crucial to detect opportunities to enhance the competitive advantage. To do so in fast-changing markets, "such as those in which most platform leaders compete," companies must constantly examine their external environments for new or untapped technologies, unmet market demands, shifts in customer preferences, and the danger of creative entrance by new and current platforms (Helfat and Raubitschek 2018, 1395).

### 3.2.2 Seizing Capabilities

Seizing capabilities come to its fore when managers aid, design, and transform the business model (Teece 2017). Innovation capabilities are by scholars Helfat and Raubitschek (2018) argued to be an essential contribution to the seizing capabilities as it urges platform leaders not only to maintain the platform, but to develop it; enhance existing products, include new or improved features, or introduce entirely new products or services. Platform leaders deliver new or modified products based on what they've learned from developing and offering earlier items – a process known as 'product sequencing' (Helfat and Raubitschek 2018). "Product sequencing entails linking new or refined products and services and the associated knowledge and capabilities, at a point in time and over time" (Helfat and Raubitschek 2018, 1394).

### 3.2.3 Transforming Capabilities

Teece (2017) emphasizes that companies facing rapid changes and new challenges must make use of their transforming capabilities frequently to stay competitive. Scholars Helfat and Raubitschek (2018) argue that internal integrative capabilities contribute to transforming capabilities. Internal integrative capabilities refer to a company's ability to integrate the knowledge of how to incorporate different activities, capabilities, and products within a vertical chain or across vertical chains (Helfat and Raubitschek 2018). When effectively communicated

and coordinated actions arise, and resources, skills, investments, and objectives can speed up the transforming capabilities (Helfat and Raubitschek 2018).

## 3.3 The Platform Lifecycle

As mentioned in the introduction of this chapter, I have adopted the idea of the business ecosystem by Moore (1993), further developed by Teece (2017) as the platform lifecycle. The four-staged model is suitable to "analyze the requirements at each stage of the platform lifecycle in terms of its dependence on the high-level dynamic capability categories of sensing, seizing, and transforming" (Teece 2017, 1). For the top management, an awareness of each platform's lifecycle can help generate a sustainable and long-term perspective on the competitive requirements of their digital platform (Teece 2017).

The four phases are birth, expansion, leadership, and self-renewal. Each individual phase acts as a predominant category. Prior literature on the platform lifecycle by Teece (2017; 2020) and Helfat and Raubitschek (2018) is reviewed and presented within each phase to structure the section. A short overview is shown in Table 4 below.

| Phase | Description |
|---|---|
| **Birth** | A value proposition is devised to capture value from innovation. |
| **Expansion** | Scale and refine the business while closing out rivals. |
| **Leadership** | Keep customers and partners engaged while maintaining a controlling position within the ecosystem. |
| **Self-Renewal** | Bring new ideas into the ecosystem. |

***Table 4:*** *The Platform Lifecycle based on Teece (2017, 11).*

### 3.3.1 Birth

Teece (2017) argues that in the early stages of a technology's development, *the birth phase,* an entrepreneur or manager is required to do 'generative sensing', which involves testing numerous hypotheses about the underlying condition of customer demand until a set of possibilities can be confirmed. Because these hypotheses aren't guaranteed to be accurate logically or scientifically, businesses make efforts to evaluate the 'truth' conditions for their hypotheses through tests (Teece 2017). Helfat and Raubitschek (2018) note that the capacity to sense is a highly required capability of platform managers since they are located in an ever-changing environment. Continually scanning the outside environment ensures that new

technology opportunities and improvements are detected and implemented in an early stage (Helfat and Raubitschek 2018; Teece 2017).

Helfat and Raubitschek (2018) consider organizational routines to be efficient in structuring the sensing capability. The routines may consist of, i.e., guidelines for when and how to do environmental surveying, detecting which sources of information to seek out – and determining the frequency of when to 'sense.' In addition, the scholars argue that the organizational units whose responsibility is to sense new opportunities and improvements could also benefit from interacting with customers or end-users (Helfat and Raubitschek 2018).

Teece (2017) argues that once an opportunity has been sensed, chosen, and approved, the next step in the birth phase is to design a well-defined, well-prepared, and agile business model.

### 3.3.2 Expansion

While *the birth phase* is where the sensing capabilities are required, *the expansion phase* is where the business model is implemented, refined, and scaled (Teece 2017). When implementing the platform business model, "platform governance (openness and/or control) must be decided" (Teece 2017, 14), and the evaluation metrics should be scoped and defined to enable an evaluation of the features of the business model applicable to capturing value (Teece 2017). To do so, it is essential to choose an appropriate platform type.

In addition to the seizing capabilities, transformation capabilities are needed in the platform's expansion phase, as the execution of adjustments to the business model is present (Teece 2017). Modifying both the platform and the business model to be agile and transformative is critical to facilitating the right conditions for introducing new products and remaining competitive (Helfat and Raubitschek 2018).

### 3.3.3 Leadership

Teece (2017, 15) point out that

*"once the platform has established a strong, steady position, then sensing capabilities come to the fore in order to be aware at the earliest possible time of strategic threats and new opportunities."*

Significant new technological opportunities and pervasive threats must be detected early on, and the platform owner must incorporate solid sensing capabilities to detect them (Teece 2020).

Helfat and Raubitschek (2018, 1393) urge that in addition to becoming aware of strategic threats and new opportunities, the seizing of new opportunities "through business model design and strategic investments" is additionally a vital step in this phase. This is further emphasized by Teece (2017), who points out that the business model most likely must be modified or replaced due to the rapid changes in the digital platform environment (Teece 2017).

Although Teece (2017) admits that the leadership phase fits more within the area of strategy, which is distinct from dynamic capabilities, strategizing can be used to counteract rival movements by making little changes like focusing on new market segments or expanding product lines. If the adopted plan necessitates change, transformation capabilities may be required to realign resources (Teece 2017). Thus, the scholar further argues that platform leaders do benefit from the "application of standard management tools aimed at raising the efficiency of a firm's ordinary capabilities" in this phase (Teece 2017, 16).

### 3.3.4 Self-Renewal

The fourth and final phase of the platform lifecycle is the self-renewal phase. This phase encompasses new ideas or 'add-ons' to the digital platform. If the all-embracing goal of the digital platform is to scale rapidly, one might need to look at our time's current 'super-platforms,' such as Amazon and Facebook (Teece 2017). Both companies have succeeded in the massive development of new, complementary products and services; to exemplify, in 1994, Amazon started as an online book store, then added CDs, "to which it subsequently added digital books and streaming video rentals, among numerous other products" (Helfat and Raubitschek 2018, 1397). Fast-forward to 2006, Amazon began offering its technical infrastructure and data center to offer a "cloud services platform to other organizations, and Amazon Web Services has grown to be the most profitable part of the company in recent years" (Teece 2017, 16).

As the abovementioned example imply, the self-renewal phase is where platform owners scope out where new additional features, services, or products can be introduced into the digital platform (Teece 2017). This implies that the sensing activities should be consistent in the self-renewal phase (Teece 2017). Thus, sensing is outlined as a significant step in the last phase of the platform lifecycle to subsist and maintain competitive advantage (Teece 2017; Helfat and Raubitschek 2018).

## 3.4 Framework

Building on the work of Teece (2017), Table 5 below views the dynamic capabilities of sensing, seizing, and transforming within the four phases of the platform lifecycle. Table 5 is inspired by the work of Teece (2017) and forms the theoretical framework for this master thesis.

| Phase | Dynamic Capabilities |
|---|---|
| **Birth**<br>*A value proposition is devised to capture value from innovation.* | **Sensing**<br>*Sense new opportunities in the business environment to detect opportunities to enhance competitive advantage.* |
| **Expansion**<br>*Scale and refine the business while closing out rivals.* | **Seizing; transforming (minor)**<br>*Transforming the business model; developing the platform, enhancing existing products, or including new or improved features.* |
| **Leadership**<br>*Keep customers and partners engaged while maintaining a controlling position within the ecosystem.* | **Sensing; seizing; transforming**<br>*Continued sensing for threats, minor seizing through business model innovation, and minor transforming capabilities frequently to stay relevant and competitive.* |
| **Self-Renewal**<br>*Bring new ideas into the ecosystem.* | **Transforming**<br>*Capabilities to transform and act on rapid changes and new challenges while enhancing the firm's ability to integrate knowledge of how to integrate different activities for expansion.* |

***Table 5:*** *Theoretical framework inspired by the work of Teece (2017, 19).*

## 3.5 Summary

This section aimed to introduce and present the theoretical lens and framework upon which this thesis is based. The impact and research history of dynamic capabilities was outlined and described. Its close relation to the resource-based view of the firm and obtaining a competitive advantage was investigated. In addition, the systematic literature review examined the three capabilities by Teece (2012; 2017) and the further developed activities by Helfat and Raubitschek (2018).

As described by Teece (2017), the four phases of the platform lifecycle were presented. The lifecycle enhances the capacity to explore the most important features of dynamic capabilities and the most relevant dynamic capabilities activities for each phase.

Finally, the theoretical framework was presented in the form of a table depicting the platform lifecycle phases and the results of the literature review on dynamic capabilities.

# 4. Method

This section presents the research methodology and the design and implementation of this master thesis. The decision to use a qualitative research approach will be discussed, as well as the logic behind it.

A research strategy is vital to establish early, to define the data collection process (Oates 2006). Thus, section 4.2 builds on section 4.1, in which the choice of research method applied in this master thesis was argued.

The section is structured as follows. Firstly, the strengths, weaknesses, and limitations of research methods, in general, are described before the research method choice is presented. Then, a review of the design and implementation process will be given, followed by a discussion of the research design and strategy applied in this master thesis. Lastly, the design implementation is reviewed, including case selection, data collection, and analysis.

## 4.1 Research Methods

Research is a systematic way of investigating and studying to create new knowledge or add to existing knowledge (Oates 2006; Vaishnavi, Kuechler, and Petter 2004). The procedures or strategies used to find, select, process, and analyze information about a topic are referred to as research methodology (Oates 2006). We separate research methods into two groups: quantitative and qualitative (Lakshman et al. 2000). Quantitative data are numeric data, i.e., the number of likes on an Instagram post (Oates 2006). Qualitative data is all other types of data: images found online, sounds, words obtained from an interview, etc. (Oates 2006). Lakshman et al. (2000) argue that quantitative data seeks to answer the “what” and “who” and qualitative data the “how often” and “why.”

Depending on the research aim and objectives, both methods have their strengths, weaknesses, and limitations. According to scholar Lakshman and colleagues (2000), quantitative data is still fragile, no matter how rigorously they are collected and analyzed. One of the weaknesses of quantitative data collected by a survey, according to the scholars, is the respondents’ liability and trust; if a respondent has trouble recalling the question, misunderstands the question, or is hesitant to respond honestly because the questionnaire topic is sensitive, the research outcome

may not correspond to reality (Lakshman et al. 2000). However, if the quantitative research method is well-developed and well-structured, it is a sophisticated way to aggregate concisely presented results between the variables measured (Lakshman et al. 2000).

When the relevant variables that produce an outcome are not obvious, or when the number of participants or outcomes under research is insufficient for statistical analysis, scholars tend to use a qualitative research method (Lakshman et al. 2000). Qualitative research is typically applied when the scholar wants to study a specific behavior or, i.e., the operation of a complex institution (Oates 2006). By obtaining data from, i.e., interviews, the scholar can gather insight into the interviewee's beliefs, motivations, behaviors, and the actions of an organization (Lakshman et al. 2000). Structured or open-ended interviews, external observation or observation via participation, and analysis of written information are all examples of the qualitative research method approach (Lakshman et al. 2000). Two of the reported weaknesses and subject to consideration for choosing a qualitative research method are that it can be time-consuming, considering the amount of time interviewing, transcribing, and reviewing data and that the data cannot be verified (Oates 2006; Lakshman et al. 2000).

### 4.1.1 Choice of Method

For this master thesis, a qualitative research approach is applied. As presented in section 1.2.1, the research question was determined to be the following:

**RQ:** *How can a private equity firm leverage its dynamic capabilities to build a digital platform?*

The research aim and objectives were compressed down to the goal of understanding how the private equity industry was able to build and develop a digital platform and the dynamic capabilities needed to do so. When revisiting the research question, aim, and objectives, it is clear that the word "how" is prominent. Thus, a qualitative research method seems appropriate to apply in this thesis. Lakshman et al. (2000) emphasize that qualitative research is suitable when there is a lack of research on the domain. In section two of this master thesis, the literature review established that prior research on digital platforms within the field of private equity is scarce. When examining the operation of a complex institution, such as the private equity industry, scholar Oates (2006) consider a qualitative method as a fitting approach.

## 4.2 Design & Implementation

A research strategy is vital to establish early, to define the data collection process (Oates 2006). This section builds on section 4.1, in which the choice of research method applied in this master thesis was argued.

The section is structured as follows. First, a review of the design and implementation process will be given, followed by a discussion of the research design and strategy applied in this master thesis. Second, the design implementation is reviewed, including case selection, data collection, and analysis.

### 4.2.1 Research Design

The research design can be thought of as the scholar's research strategy; in the purpose of answering the research question, the appropriate research strategy must be in line with the research's goal. Figure 3 depicts the research process model, in which Scholar Oates (2006, 33) argues that research strategies are the third step in the research process:

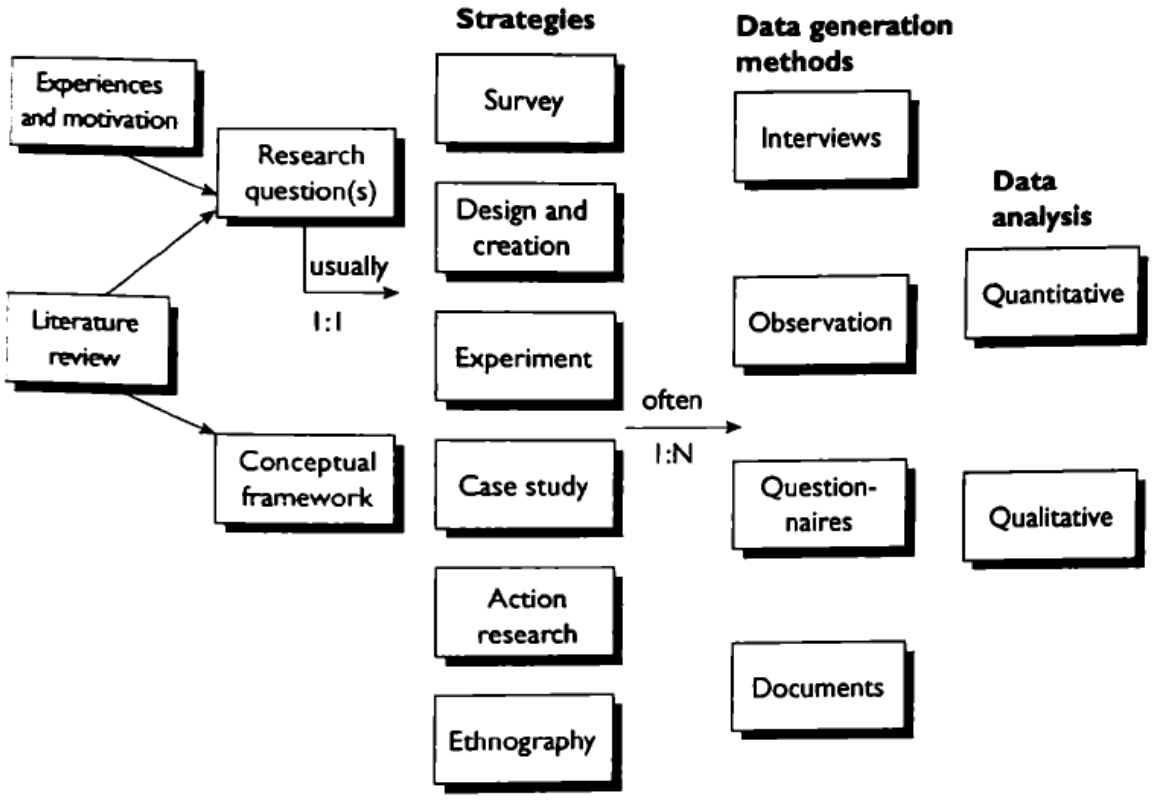


***Figure 3:*** *The Research Process Model based on Oates (2006, 34)*

As viewed in Figure 3 above, a research strategy is the overall approach to answering the research question (Oates 2006, 35).

For the purpose of this master thesis, the qualitative method with the research strategy of a case study has been adopted. An evaluation of Oates's (2006, 35) six strategies was conducted in order to ensure that the most appropriate research strategy is used.

The case study approach promotes the exploration of an aspect, a context, an event, or a *case* (Baxter and Jack 2015). In Oates (2006), a case study refers to a research strategy that examines an issue within its real-life context. The individual, an organization, a department, a decision, etc., can all be considered in the study (Oates 2006). To understand the complex connection and processes, the aim is to obtain a comprehensive and detailed insight into the examined case (Oates 2006). There are three types of case studies (Yin 2003); an exploratory study, a descriptive study, and a descriptive study. An overview of the three types of case studies, their purposes, and their usage are presented below.

**Exploratory case study**

The overall purpose of an exploratory study is to "define the questions or hypotheses to be used in a subsequent study" (Oates 2006, 143). The researcher's goal is to determine, i.e., if there is a gap in the literature, and thus, a non-researched real-life scenario to be investigated. The exploratory study is well-used to help the scholar establish which "questions to pose in a questionnaire to be used in a survey" (Oates 2006, 143).

**Descriptive case study**

A descriptive study offers a deeper understanding of a particular phenomenon and its context. It is presented with a story analysis that discusses the occurrences and how people interpreted the situation or happenings (Oates 2006).

**Explanatory case study**

The purpose of an explanatory study goes beyond a descriptive study in attempting to explain why certain events or outcomes occurred as they did. The analysis finds the various, often interconnected aspects that had an impact or compares what was discovered in the case to theories from the literature to discover whether one theory fits the situation better than others (Oates 2006).

According to Oates (2006), case studies differ in their attitude toward time; a historical study, a short-term study, or a longitudinal study. The historical study examines prior events and seeks to find the recollections of previous events and analyze the records from the time period (Oates 2006). A short-term study looks at the events happening as of right now, and here, the researcher

observes what occurs and asks participants to elaborate on their experiences at the moment (Oates 2006). A longitudinal study entails the researcher following the case over a period of time, ranging from one month to several years, analyzing the ongoing processes and linkages and those that vary (Oates 2006).

Yin (2003) identifies the case study method as useful when the researcher is interested in the *how* and *why* of a phenomenon. Thus, the case study method can help generate insight and acquire rich data for how digital platform innovation have played a crucial role in raising capital digitally, and provide a detail-rich body of insights into the what, the how, and the why of the matter.

To understand the how digital platforms have transformed the private equity fundraising process, the chosen research strategy and design should be well-equipped to generate understanding and insights.

Because of the case study's ability to produce insight and investigate the transformation of a digital platform within its natural setting makes the choice of research strategy uncomplicated. The research question of *"How can a private equity firm leverage its dynamic capabilities to build a digital platform?"* cannot be answered without analyzing the issue within its real-life context. Based on the previously mentioned artifacts, the accurate research design and strategy for this master thesis is an explanatory and longitudinal case study.

### 4.2.2 Selection of Case

When selecting a case to investigate the research question of this master thesis, several considerations were made. Scholars Seawright and Gerring (2008) argue that a random sampling of case studies is not a viable approach for selection. They consider the existing qualitative literature on case selection as a wide range of suggestions for case selection that require an in-depth familiarity and that a suitable case selection technique is necessary to avoid bias (Seawright and Gerring 2008). Even if instances are initially chosen for pragmatic reasons, it is critical for researchers to understand how the attributes of the selected cases relate to the rest of the population retrospectively (Seawright and Gerring 2008). Researchers have discovered, however, that even randomly selected case studies contribute to the existing body of knowledge and allow other scholars to pursue their interests in the chosen topic (Seawright and Gerring 2008).

### 4.2.3 Case Requirements

A set of criteria was created to ensure that the ideal case study for this master thesis was selected. The complete set of requirements is presented in the following.

The case study had to be carried out in a private equity firm, which was the first requirement. The condition is granted since the research question explicitly addresses how a private equity firm was able to build a digital platform. There were no criteria for the firm's size or location.

According to the second criteria, the researcher should be provided complete flexibility to observe and gather data in conjunction with the case study. To create a solid basis, complete transparency and honesty were required. Access to people who work and have worked on the project was also a requirement I could not elude.

### 4.2.4 Choice of Case Study

The case requirements were carefully evaluated when deciding on a fitting case study for this master thesis. This case study was performed over a period of five months, where I was a part of the operational specialist department in a Nordic private equity firm.

During the global Covid-19 pandemic, the private equity firm developed a digital platform, named the 'Investor Portal.' The portal's function is to provide investors transparency and information about their investments. In example, it features quarterly valuations presented by investment teams, updates on each portfolio company's performance, and general information such as the private equity firm's annual investor meeting.

I worked closely with the investor relations team on the project, and it was our responsibility to develop the investor portal further to utilize its full potential. I have broad access to the project participants, documentation, and workplace culture since I am working full-time on the project.

The research project was registered at The Norwegian Centre for Research Data (NSD) to ensure that the case study participant's personal data was carefully supervised (Appendix A). The role of NSD is to "ensure that data about people and society can be collected, stored, and shared, both safely and legally, today and in the future" (NSD n.d.).

## 4.3 Data Collection

The main data source in this master thesis are semi-structured interviews, as well as formal documentation and informal conversations with project participants. In the following, the complete data collection process will be described.

### 4.3.1 Choice of Interview

Scholar Oates (2006, 186) describes the interview as "a particular kind of conversation between people." This specific conversation involves a set of assumptions that normally are not present in conversations between people. The reasoning behind is classified by the interviewer's purpose for the conversation: "they want to gain information from other(s)" (Oates 2006, 186). In addition, interviews have an often predefined agenda, being the particular issues that they want to investigate (Oates 2006).

In research, there are three types of interviews, each with different predefined outcomes: structured, semi-structured, and unstructured interviews (Oates 2006). Oates (2006) defines all three as such: the structured interviews can easily be identified, as they contain pre-determined, standardized, and identical questions for all interviews. The semi-structured interviews have a set of questions to be asked in the interview, however, the interviewer has the opportunity to change the order of questions depending on the conversation flow. Natural occurring questions can also be asked. The unstructured interviews give the interviewer less control, as there are no pre-defined questions to ask. It allows both the interviewer and the interviewee to talk freely about prior or current experiences, beliefs, or behavior (Oates 2006).

The three types of interviews were all considered in this master thesis. Semi-structured interviews were considered to be a fitting choice since both semi-structured and unstructured interviews allow interviewees to 'speak their minds' (Oates 2006). The specified interview types are best utilized when the researcher wants an in-depth investigation rather than drawing research conclusions based on generalizations (Oates 2006). I find that the research questions of this master thesis are best explored through an in-depth analysis of the case in its natural context. Thus, semi-structured interviews are used as the primary source of data collection.

### 4.3.2 Sampling Informants

To identify and sample the case study informants, it was critical to accessing the people who had been a part of the project since the beginning. It would have been challenging to gain insight into the underlying reasons for decisions made without access to informants who had been

involved since the inception of the firm or the project. As I was newly hired when the work with this case study began, I had not had the time to assemble an overview of the project participants – both current and historically. As a result, I began my investigation by researching the firm's databases to determine the authors of the documents. Informal conversations with the head of investor relations were also held to help scope out the project's participants.

In conjunction with my conversations with the head of investor relations, a list of project participants were made. One of the identified project participants had left the firm, but I was granted acceptance to pursue an interview. The rest of the team involved were: the head of investor relations, two investor relations associates, and an external developer. Table 6 below summarizes the number of informants and interviews, in addition to the interview duration and interviewee's abbreviations.

| Interviewee role | Number of interview(s) | Duration | Abbreviation |
|---|---|---|---|
| Head of Investor Relations | 2 | 2 x 30 minutes | A1 |
| Investor Relations Associate 1 | 1 | 30 minutes | A2 |
| Investor Relations Associate 2 | 1 | 30 minutes | A3 |
| Product Developer (former employee) | 2 | 30 minutes | B1 |
| External Developer | 1 | 30 minutes | C1 |
| **Total number of interviews** | **7** | | |

***Table 6:*** *Number of interviews, duration, and interviewee abbreviation.*

### 4.3.3 Interview Guide

The qualitative method of semi-structured interviews requires prior knowledge within the field of investigation, as the interview questions are determined before the interview (Kallio et al. 2016). With this in mind, the interview guide was made after the systematic literature review was done to ensure that I had prior knowledge in the field in mind. As mentioned in 4.3.1, the semi-structured interviews provide flexibility, as the researcher can ask follow-up questions if needed. However, an interview guide was required to ensure consistency in the data gathering.

The interview guide was structured after the theoretical framework; four categories, each named after the four phases of the platform lifecycle: birth, expansion, leadership, and self-renewal

(Appendix B). The dynamic capabilities needed within each phase were then added before the questions were formed. I was conscious not to overthink the questions, as I was aware that the interviewees had both unique background knowledge on digital platforms and had joined the project in different phases of the platform lifecycle. Questions that were leading were avoided to ensure that biased data was eliminated.

When the interview guide was finished, I conducted numerous test runs on non-project co-workers to ensure that the flow was correct and gave me practice as an interviewer. In these test runs, I became aware that the introduction lacked the question of educational background, and thus, this question was then added. Although the informants' educational background initially did not appear as an important question to ask, I discovered that it was interesting knowledge to determine whether this had any impact on their dynamic capabilities.

### 4.3.4 Interview Process

As previously stated in 4.3.2, informal conversations with the head of investor relations determined the key employees involved in the platform project. Three of the informants were located in another country. Thus, three of the interviews were conducted via Microsoft Teams, a digital video conferencing technology. Two of the informants were interviewed in person in Norway: the head of investor relations in the firm's headquarters and the former employee were interviewed at their new firm's office. The informants were used to video meetings, and we did not have any issues regarding the need to go 'digital.'

The interviews took place over the course of one week. This was a well-considered decision, as I wanted to maintain the momentum and gain as much insight at once. This was beneficial to me as an interviewer, as the knowledge and experience from prior interviews were kept 'fresh in mind.' I followed the interview guide to ensure that all concepts were covered and that each conversation flowed naturally. In addition, I took notes of any observations that appeared during the interviews and outlined important statements.

All except one of the interviews were conducted in English, as this was the informants' native tongue. As the interviews were completed, they were transcribed. The interviewees were informed that the session was determined to last 30 minutes.

## 4.4 Data Analysis

The data analysis process will be detailed in this section, as well as the rationale behind it. In this master thesis, a qualitative data collection strategy using semi-structured interviews was

performed. The data analysis aims to identify key concepts and categories in the words that informants describe (Oates 2006).

There are several methods to be used for analyzing the qualitative data. According to Oates (2006), you can separate the data into segments that carry no link to the main study aim, segments that provide basic descriptive information that the researcher requires to establish the research background for the readers, or segments that appear to be pertinent to the research topic. In addition, Oates (2006) emphasizes that the researcher also can draw upon the chosen theoretical framework to help with the data analysis – and urges that one might find that the framework needs amending if interesting things occur during the interview.

### 4.4.1 Coding

As presented in 4.3.3, the interview guide was based upon the theoretical framework, and thus, I chose to do the same for the data analysis. As the questions were made accordingly to the four platform lifecycle phases linked to the dynamic capabilities needed in each phase (Teece 2017), the categorization was determined prior to the data collection. The coding of the qualitative data retrieved from the semi-structured interviews is therefore equivalent to the theoretical framework visualized in 3.4 Framework.

## 4.5 Validity and Reliability

Validity is an important aspect of research as it concerns the accuracy and truthfulness of the findings (Brink 1993). Scholar Brink argues that "a valid study demonstrates what actually exists, and a valid instrument or measure should measure what it is supposed to measure" (1993, 35). In research, we distinguish between internal and external validity (Oates 2006). Shortly summarized, internal validity means to ensure that the research findings reflect a truthful interpretation of the reality (Brink 1993). The external validity concerns whether the findings are representable and applicable across groups (Brink 1993).

Reliability in research is equally an important thing to consider when doing research (Oates 2006). Brink (1993) notes that reliability concerns the consistency and repeatability of the data extracted from informants, meaning that the researcher must be able to collect and record the accessed data in an accurate matter. The researcher must be consistent with the chosen methodology when collecting data to be able to compare the results and reflect the reality (Brink 1993).

There are several risks and concerns related to the data gathering of qualitative data, as the researcher is in charge of both the data gathering and the interpretation of the data. To improve the validity of research, Brink (1993) recommends managing the acquired data with care and ensuring that all study participants have received the same instructions prior to the interviews.

In this master thesis, great efforts were made in order to ensure consistent data gathering and -handling. By using the theoretical framework as a backdrop for all aspects of the data collection, I have ensured that the data reflects a concise and truthful interpretation of reality. Whilst I cannot be certain that the informants did not interpret and close out parts of the truth, I have safeguarded that they all received the exact instructions prior to the semi-structured interviews. Furthermore, the informants did not report any contradicting findings when asked the same question. The gathered data in this master thesis presents the informant's experience and understanding.

### 4.6 Summary

The purpose of this section was to outline a solid research strategy to be able to define the data collection and data analysis process. The qualitative method of a case study was chosen as the research design. Then, the case requirements and choice of case study were presented.

The section carefully described the data collection process, which included the choice of interview technique and the process of sampling informants for the interview. The structuring of the interview guide was critical to ensure that the data set provided insight into the four phases of the platform lifecycle, and thus, it is closely related and based upon the theoretical framework. Lastly, the data analysis method was presented.

## 5. Results

The following section presents the results and findings from the semi-structured interviews. Seven interviews were conducted in total (Table 6). The section is structured as follows. First, the context and background of the project, according to the interview results, will be described. For the purpose of bringing structure to the section, the rest of the results will be presented accordingly to the four phases of the platform lifecycle presented in section 3.3.

### 5.1 Background

All interviewees were asked identical introductory questions about their educational choice, their function in the firm, and their amount of experience with digital platforms before the

interview guide formally began. The intention was to see if prior knowledge or educational background influenced the dynamic capability required to run and develop a digital platform.

The interviewees had a mix of educational backgrounds, which varied from a bachelor's degree in biology, economics, and information systems. Only one interviewee had prior knowledge working with product development and one with platform development and governance. The informants were asked to describe their prior job experience with digital platforms. Two of the interviewees shared that they had either been involved in a previous project with similarities to the investor portal or that they've built digital platforms before as a part of their job.

*"I've had partners having digital platforms that I've used, but previously I've only worked with digital data rooms on DocsEnd, which is like a folder structure. Not the same way that the investor portal is set up. In that way, the investor portal at our firm is way more extensive in terms of the overview of documents and content."*

(Interview, A2)

*"We have built a digital platform internally in our company, and then we have done the investor portal. The investor portal is definitely the biggest platform we have built. It's one of those projects where every time that we're doing something, it's sort of an experiment."*

(Interview, C1)

The three remaining informants had no prior experience working or governing digital platforms.

## 5.2 Birth

The birth phase, as described in 3.3.1, is when an entrepreneur or management must engage in 'generative sensing,' which entails testing a variety of hypotheses regarding the underlying condition of customer demand until a set of options can be established (Teece 2017). Prior research argued that the capacity to *sense* is a highly required capability of platform managers since they are located in an everchanging environment (Helfat and Raubitschek 2018). When asked about the reasoning for deciding to build the investor portal, the platform manager and project owner highlighted that the investor relationships had been individually stored prior to the investor portal being made.

*"When I took over the responsibility for investor relations at our firm, I had never previously worked with IR before. Our former head of IR had developed a relationship with each investor*

*individually, so when she left, we didn't have a list over the agreements or other relevant information."*

(Interview, A1)

The platform owner stressed the importance of scaling investor relations in tandem with the company's growth when describing the investor portal premise. The hypothesis did also include that an investor portal could increase the investor relations team's efficiency, as the interaction between investors and the investor relations team was previously dependent on emails, which resulted in a significant increase in and need for administrative duties.

*"I wanted to create an information flow structure that was scalable, and it was important for me that the structure was not based on individual relationships. Earlier, we used to send documents with information by email attachments. That created even more administrative work, as our investors would often ask for historical documents – not just the most recent documents. That's when the idea for the investor portal came to my mind. Then covid came, and we decided to do it."*

(Interview, A1)

The former employee, hired as a product developer, argued that in the birth phase, the team sought to find the quickest source to find value and validate it with the lowest budget available (Interview, B1). As the product developer was the only one having prior experience with product and concept development, the platform owner appointed the product developer to gather external knowledge and experience from other private equity firms. This led to a meeting with other private equity firms, which had built their own investor portal. In addition, the product developer conducted several interviews with investors to scope their needs and preferences. (Interview, B1). By conducting these interviews, the product developer found useful information about the needs, habits, and patterns of their investors. The gathered information from the product developer emphasized the firm's investors often times had multiple funds they had invested in and a very busy schedule (Interview, B1). For the platform team, this meant that they had very limited time to engage the end-user of the platform. The product developer explained:

*"As the investors' attention span – and time – are scarce, we had to make sure that they didn't have to go through multiple steps to access the portal. Any hick-ups or three-step log-in processes would mean a decreased use of our portal".*

(Interview, B1)

When reviewing this potential issue, the team tested multiple hypotheses before deciding on a suitable feature. One of the features explored was to implement Microsoft 365.

"*We wanted to be respectful of the investors' time, so at first, we tried to implement Microsoft 365 as a log-in to the portal. But, we found that this did was not an effective way as we then had to explicitly share access manually to all users. When scaled, this was a very time-consuming process."*

(Interview, B1)

After reviewing many options to implement a manageable, low-budget, and secure way to log in to the portal, the platform team finally landed on a solution. The external developer explained:

*"We found a WordPress plugin called Magic Link, which sends a unique generated link to each investor when login into the portal. The link is sent directly to the investors' email, which solves both a password issue and a security issue."*

(Interview, B1)

The company's value of transparency was an essential feature of the platform. Investors knew they could always access all the information on the portal, and according to the firm, the investor portal fostered trust (Interview, A1).

*"Our firm values transparency, and our goal with the investor portal is to increase the level of transparency for our investors, so that they can quickly get the information that they need."*

(Interview, A1)

The informants did not necessarily look to competitors when they scanned the environment; the inspiration could come from other commercial players, such as Netflix. This was considered a differentiator as none of their peers in the same space had it.

*"Our investor portal is much more commercialized. Instead of doing PowerPoints of quarterly updates – we film them in a film studio. So I think our investor portal differentiates from the others I've seen; they are much more factual – i.e., a document showing their drawdowns, whereas ours presents them in a Netflix-inspired interface with videos of our deal teams*

*presenting. The other portals I've seen have been made more from a purely practical perspective and not around transparency such as we are."*

(Interview, A1)

According to the investor relations associate 1, the platform team did not have explicit routines for environmental scanning activities, a lot of the inspiration came from inbound requests; external platform developers reached out and offered the team a demo trial, where the team could see if they wanted to consider their platform as an alternative to the current investor portal (Interview, A2). By reviewing and trying other 'plug-and-play' platforms, the platform team at the private equity firm gathered a great source of inspiration while collecting knowledge of what users (investors) wanted. In addition, investor associate 2 argued her background with a bachelor's degree in information systems to be valuable:

"*Personally, I think my background helps me a lot with inspiration sourcing, as I understand how the technology behind work – and then I can understand how platforms are perceived both from the backend and user-end."*

(Interview, A3)

## 5.3 Expansion

The second phase in the platform lifecycle, expansion, described in section 3.3.2, Teece (2017) urges that the platform governance must be decided, in addition to the scoping and definition of the evaluation metrics. In this phase, it is beneficial to define and implement a solid business model that correlates with the evaluation metrics (Teece 2017).

According to investor relations associate 2, the business model was portrayed in the teams' objectives and key results (OKRs) (Interview, A3). The team found it intuitive and agile to base the needs, wishes, and features in the investor relations on their OKR board (Interview, A3). As the OKR board was not set in stone but highly adaptable, the team found that they could easily reiterate, adapt, and react to sudden treats or new features. The investor relations associate 2 argued the main OKR for the year is to have a data platform extension attached to the portal.

*"The main OKR for the year is to have a data platform extension to the investor portal. We want to have one main communication hub that we can use for everything, whether it's for*

*financial communication, for our annual investor meeting, marketing materials, and investor's private commitments."*

(Interview, A3)

The external developer on the project emphasized that due to the project's budget being in a lower scale, the platform was developed within WordPress, an open-source content management system (CMS) (Interview, C1). According to Wikipedia, WordPress is written in PHP, and paired with a MySQL or MariaDB database (2022). When asked about how the investor portal was built, the external developer explained:

*"The data on the investor portal is stored in a database, and that database is hosted in a hosting company. That database again is kept on a server through a WS, which is a sub-company of Amazon. The portal is built within WordPress, which is a choice I wouldn't necessarily have done today."*

(Interview, C1)

Teece (2017) urges that for the expansion phase to be effective, the platform team must be agile and transformative to facilitate the right conditions for introducing new products and remain competitive.

*"There is definitely a very high ceiling in our culture in terms of bringing in new ideas. And it's a very collaborative atmosphere, and I do feel that everyone in our team works very well together and pushes ideas forward. So in that sense, I definitely think we are relatively fast in execution and development of new features we want to include."*

(Interview, A2).

The formerly employed product developer on the team explained that they worked closely with the external developer and a UX designer to create the investor portal. According to him, the project process was very agile and fast-paced.

*"The investor portal was built in three sprints, where one sprint would last 1,5 weeks. So in a matter of four and a half to five weeks, we had the first demo of the investor portal ready to be used by our investors."*

(Interview, B1)

The first iteration was created consistently with the second quarterly valuation report. The product developer argued that this was intentional to launch within that timeframe, as the

quarterly valuation report would create a 'hook' for the investors, forcing them to use and get familiar with the new portal (Interview, B1).

## 5.4 Leadership

According to Teece (2017), the sensing capabilities come to the fore in the leadership phase of the platform lifecycle. In this phase, the platform is established, and users are invited into the digital environment. To detect strategic threats and new opportunities, the platform owner and -team must incorporate either routines or other strategic activities to identify where additional features or adjustments to the platform business model can be found (Teece 2017; Helfat and Raubitschek 2018). Teece (2017) argues that transformation capabilities may be required in this phase to realign resources.

The head of investor relations explained that the routines to ensure that the investor platform was continually developed stemmed from an organic process.

*"We use our company brand and communication guidelines, and whenever we detect the need for a new feature or section, we develop it based on that. Asking for feedback internally and externally is something that we do every month. However, it is seldom that our investors give any feedback to ack on."*

(Interview, A1)

By 'forcing' the end-users into the platform, the investor relations team ensures that the portal is used. In addition, the head of investor relations also notes that this puts a demand back on the team to continue developing the portal to fit the team's needs (Interview, A1). In this way, the need to develop does not stem from the end-users but rather the investor relations team. The head of investor relations summarized:

*"We basically force them to use it, as we don't send out any documents over email, so all information is stored through the investor portal. If you want to attend our annual investor meeting, you have to register through the portal, if you want to stream the annual investor meeting, you have to go into our investor portal, if you want to assess the information about a new deal, you have to log into our investor portal."*

(Interview, A1)

The investor associate 1 explained that the team had weekly meetings with the firm's communications department and the external developer to keep up with developing (Interview,

A2). Prior to the meeting with the external developer, the investor relations and communications team had a reoccurring weekly meeting discussing the agenda, discussion, and task prioritization for the external developer.

*"I would say our platform strategy is aligned with our firm's values of transparency and entrepreneurial spirits; we try to always co-create to facilitate the best outcome. In that way, both the IR and comms. team is part of brainstorms and discussions, and if one of us is away, the others can easily step in, and task prioritize."*

(Interview, A2)

In these reoccurring meetings, the team sought to continuously investigate the current features of the portal and identify where additional features could be added to keep the investors engaged. One idea that came forward in these meetings, the product developer explained, was to give potential investors access to the investor portal (Interview, B1). Not just as a way of advertising for their ecosystem but also to get feedback. According to the product developer, this was highly successful.

*"As part of the fundraising processes, our head of IR actually invited potential investors into the portal. This gave them a peek into our universe, and they were very impressed by the level of information displayed and the commercialized way of showcasing quarterly and annual results in our Netflix-inspired media archive."*

(Interview, B1)

## 5.5 Self-Renewal

According to Teece (2017), self-renewal activities are the most essential pursuits in the fourth and final phase of the platform lifecycle. This phase encompasses new ideas or 'add-ons' to the digital platform. Platform owners who want to expand their ecosystem will continue to develop and add services throughout this phase to guarantee that end-users find the platform attractive to use (Teece 2017).

The investor portal team all attested that there were multiple add-ons in the pipeline. The head of investor relations explicitly noted that a similar platform was in the making:

*"We have begun to develop a similar platform aimed at our portfolio companies, so in the same way, they can access information and masterclasses on a platform. And then we want to incorporate more content on thought leadership in the platforms."*

(Interview, A1)

The platform aimed at the private equity firm's portfolio companies is considered to be an add-on to the firm's digital ecosystem. The investor relations associate 2 said that the additional portfolio company platform was part of the team's plans to create a complete ecosystem that serves all stakeholders connected to the platform (Interview, A2). This means that stakeholders would have unique access to a platform where all valuable information would be stored and easily accessible.

In addition, the team worked on integrating an external platform that, in an informative and visual manner, portrayed the unique capital commitments of each investor. Investor relations associate 2 summarized the current status of this project:

*"We are working on the integration process of an add-on from another platform currently. We are in the midst of deciding internally on how to set up the process. Our external developer is discussing how we can integrate and implement it efficiently with the other firms' CTO."*

(Interview, A3)

The individualization of the platform(s) was urged to be an important aspect of the digital platform ecosystem.

*"We want our investors to be able to do the whole process from signing an NDA, access an interface with an overview of all data, and then also to be able to sign subscription documents and legal cases within one hub."*

(Interview, A2)

The head of investor relations urged that the investor portal does not have a specific end goal:

*"No, we are never done. We want to make an ecosystem of services for our investors. My dream goal is to be able to have fully digital fundraising; the investors should be able to access all legal docs, sign them and review them afterwards. I am very inpatient … The industry demands a lot of practicalities and formal processes, but I would just like it to be digital and efficient."*

(Interview, A1)

## 5.6 Main Results

The main findings from the semi-structured interviews are summarized and outlined in table 7 below. Divided according to the four phases of a platform lifecycle, the main findings and connections to the dynamic capability theory can be found in the right-handed column.

| Platform Lifecycle Phase | Main Findings |
|---|---|
| **Birth**<br>*A value proposition is devised to capture value from innovation.* | • Generative sensing capabilities explored through the identification of new opportunities to increase internal efficiency and offer new innovative service to end-customers (investors). |
| **Expansion**<br>*Scale and refine the business while closing out rivals.* | • Low project budget resulted in the choice of WordPress as the platform architecture.<br>• Agile and collaborate collaboration within the platform team increased process execution rate.<br>• Closing out rivals by offering an innovative and rare solution to end-customers. |
| **Leadership**<br>*Keep customers and partners engaged while maintaining a controlling position within the ecosystem.* | • "Forced" use of platform to prompt end-customers to engage and increase interaction.<br>• Weekly meetings internally and with external developer to pursue new features and developments.<br>• Showcased the investor portal to potential investors. |
| **Self-Renewal**<br>*Bring new ideas into the ecosystem.* | • No formal business strategy involved in the project.<br>• Add-ons in the pipeline; additional platform for portfolio companies, planning to create a communication hub, and have a fully digital fundraising process through the investor portal.<br>• Commercialization seen as competitive advantage. |

***Table 7:*** *Summary of the main findings*

In the following discussion section, Table 7 above will be utilized to analyze and discuss any discrepancies or contradictions that may arise in the junction of the theory of dynamic capabilities with the acquired data.

## 5.7 Summary

The purpose of this section was to present the results and findings from the semi-structured interviews. The section aimed to present the data in a structured way with the help of the four

phases of the platform lifecycle by Teece (2017). The logic behind this decision was to be able to assess and link the gathered data to the theory of dynamic capabilities, and detect any inconsistencies. The summarization of the main findings was outlined in Table 7, which will be used to better the upcoming discussion section.

# 6. Discussion

This section aims to interpret and discuss the findings presented in section 5 with the literature and theoretical framework backdrop, previously reviewed and presented in sections 2 and 3. The overall goal is to gain a deeper understanding of the dynamic capabilities theory and its influence on establishing a digital platform. Furthermore, to highlight any new insights the master thesis has into the existing body of literature.

The section is categorized after the four phases of a platform lifecycle by Teece (2017) to ensure structure in the discussion and consistency with how the results were sorted. In each phase, the findings from chapter 5 will be discussed and compared to the literature from section 2 and the theory of dynamic capabilities, previously described in chapter 3. In addition, the informants' educational background, previous experience, and how this has affected each phase will be interpreted. Before I present the discussion part, I find it helpful to revisit the research question:

*"How can a private equity firm leverage its dynamic capabilities to build a digital platform?"*

## 6.1 Birth

The birth phase is when an entrepreneur or management must test several hypotheses about the underlying condition of customer demand until a set of possibilities can be developed (Teece 2017). The wording for this activity is called 'generative sensing,' and research argues this to be a highly required capability of platform managers (Helfat and Raubitschek 2018). Teece (2017) finds the sensing capability to consist of the ability to sense new opportunities in the business environment. The findings show that the head of the investor relations team and platform owner did indeed engage in both generative sensing and sensing. The need for and reasoning behind the decision to build a digital platform was identified to stem from the firm's focus on the value of transparency. Although the team did not report a specific set of hypotheses, the investor platform came through as the winning idea; and in the end, that idea did solve both internal and external customer demands.

The results show clear parallels between the level of prior experience and the activities in the birth phase; investor relations associate 1 stated that the team did not have clear routines for environmental scanning. However, they did receive inbound requests from external platform developers and conducted several 'spanning' activities through interviews with peers to collect inspiration. While literature does not argue a need for structure, it does demand a constant and never-ending examination of external environments for new and untapped technologies (Teece 2017). Being dependent on external inbound requests is not the preferred choice for establishing a stable routine for environmental scanning. A more experienced team would, according to literature, be more likely to create solid and consistent routines. On the contrary, the team's use of other external factors of inspiration, such as the Netflix-inspired feature of showcasing quarterly reports, is indubitably a good return on investment and an enabler for attaining competitive advantage. Thus, in this matter, the findings show clear contradictions to the literature of Teece (2017) – the sensing capabilities do not have to be based on structure and routines to be present.

When interpreting the results from the birth phase, it is clear that although the team had little to no prior experience with digital platforms, it did have sufficient sensing capabilities, as they did manage to foresee the need for a digital platform and establish the outlines of the investor portal. Furthermore, the findings showed clear links to the existing literature in terms of scanning the environment through interviews with investors and peers. The team's sensing capabilities initiated a brainstorming session regarding its users' time and attention span, which resulted in a creative way of logging in to the portal. Revisiting the literature, Bonina et a. (2021) argue that on an innovation platform, value is created through the plethora of new services created by external third-party developers and by implementing the Magic Link feature through a plugin in WordPress, the team saw significant value.

The sensing capabilities contributed to solving several internal issues. One is the urge to scale the investor relations in tandem with the company's growth, now possible with a digital ecosystem, another being a decrease in the daily and time-consuming administrative tasks of the investor relations team. The third positive outcome of the sensing capabilities was that the firm leveraged its 'natural' advantage of the 'chicken-and-egg problem' described by Hein and colleagues (2020). For a digital platform to be successful, it needs both the complementor and consumer side to offer a legitimate value proposition, and as the firm already had the consumer – the investors – the additional service of a platform can be seen as increasing the firms competitive advantage, as not many private equity firms have one.

## 6.2 Expansion

Teece (2017) defines the second phase of the platform cycle to consist of scoping and definition of evaluation metrics of the digital platform. In addition, it's recommended to establish a solid business model for the platform. In this phase, the seizing and minor transformation capabilities are needed to execute the establishment of a digital platform (Teece 2017).

The results were aligned with the theoretical findings in several ways in the expansion phase. Teece (2017) highly emphasizes that a business model should be in place. In addition, Teece (2017) argues the speed of execution is a critical factor in enhancing or capturing competitive advantage during the process of platform innovation. The team's choice of having an agile and flexible approach, with a solid OKR board to lead the way, correlates very well with the theory. Furthermore, the literature argued an effective and transparent communication flow is highly effective when speeding up the transforming capabilities (Helfat and Raubitschek 2018). The results clearly support the idea of having a collaborative dynamic in the work culture, which undoubtedly contributes to leveraging both the seizing and transformation capabilities (Helfat and Raubitschek 2018; Teece 2017).

The results show that even on a tight budget, it is possible to establish a well-functioning digital platform. Through a three sprint period of time, the investor platform was built and launched.

The results established the choice of using an innovation platform as the preferred choice of platform type. When revisiting the literature review, it was made clear by existing research that innovation platforms serve as an enabler for third-party developers to create applications on top of the platform core and accelerate new innovations (Bonina et al. 2021). The results confirmed that due to budget considerations, the investor platform was built on the open-source CMS system of WordPress. However, the results also indicated that if the team were to develop the investor portal all over, WordPress would not be the preferred choice of an innovation platform. This finding was unexpected and suggests that the platform team leveraged their sensing capabilities more than their seizing capabilities in this phase; the sensing capabilities contribute to detecting shifts in the market change. As the results failed to identify a suitable alternative to WordPress, it is impossible to determine which platform the team would find more appropriate. However, prior studies have noted the importance of reiterating choices, being agile and transformative to be effective in the expansion phase (Teece 2017).

A strong relationship between using the network effects and innovation platforms has been reported in the literature (Trabucchi and Buganza 2020; Gatautis 2017). Using an open-sourced CMS system to achieve the network effect is by research seen as effective to scale rapidly (Gatautis 2017) and benefit from the accelerated innovation made through third-party developers as mentioned above (Bonina et al. 2021). These findings further support the research of Bughin, Catlin, and Dietz (2019) who emphasized that a vast majority of firms have decided to join industry platforms run by third parties already running, i.e., an innovation platform.

## 6.3 Leadership

In the third phase of the digital platform lifecycle, it is important to keep customers and partners engaged while the platform team maintains a controlling position within the ecosystem (Teece 2017). In this phase, the sensing capabilities are reassessed with a larger focus on identifying possible threats while considering minor transforming capabilities. When combined, the two capabilities ensure that the platform team identifies treats and acts on them accordingly (Teece 2017).

One interesting finding in this phase was the team's way of ensuring that the investors used the platform. By creating a setting where the investors were 'forced' into the platform by ending the prior routine of sending out information via email, the use of the investor portal was boosted and the launch's performance was enhanced by driving investors into the portal organically. The choice to end the prior information flow that was manually administrated was an effective choice, and demonstrated that the team acted on both their sensing and transforming capabilities.

The findings confirm the association between Teece's (2017) description of the leadership phase and the sensing, seizing, and transforming capabilities and activities present in this phase. The team's weekly meetings with both the internal and external teams working with the platform are seen to be an excellent enabler for becoming aware of strategic threats and new opportunities (Teece 2017). The findings indicated that in these meetings, the idea of showcasing the platform to potential investors came to mind. As presented in the literature review, digital platforms have become necessary to uphold competitive advantage, and thus, the idea of showcasing the portal to potential investors as a way of advertising for the firm was a good way to control the position as an innovative and out-of-the-box thinking firm (Gawer 2021; Accenture 2018; Helfat and Raubitschek 2018).

Surprisingly, there were no specific findings on any strategic threats in this phase. Although the findings above do describe the seizing of new opportunities to increase the momentum of the digital platform being rather unique in the industry and thus showcasing it as a way of marketing the firm, this cannot be classified as a threat, however, an opportunity.

## 6.4 Self-Renewal

In the self-renewal phase of the platform lifecycle, platform owners are highly dependent on their transforming capabilities (Teece 2017). To keep the momentum and use of the platform up, the ability to transform and act on rapid changes and unforeseen challenges while improving the firm's ability to integrate the knowledge of how to incorporate activities for expansion is essential (Teece 2017; Helfat and Raubitschek 2018).

The results reviewed that the team had already acted on their transforming capabilities, as the expansion of a similar platform – added as an extension to their platform ecosystem – where already in development. In literature, this is seen as beneficial, as an extension of a firms digital eco-system of services with strategic partnerships increase the competitive advantage (Schreieck and Wiesche 2017; Kazan et al. 2018; Omarini 2017). The expansion of an additional platform aimed at the firm's portfolio companies demonstrates that the firm has leveraged its full potential in terms of the transforming capabilities. Furthermore, it reveals that in an industry filled with a traditional and rather conservative view toward digital transformation (Vermeulen et al. 2020), the firm has taken a clear step in positioning itself as a first-mover and a good example of how a private equity firm can co-create value together to serve its investors.

This finding corresponds well with the literature from Teece (2017), which argues that the self-renewal phase is the phase to scale and look to our time's current 'super platform' for inspiration. The add-ons described by the investor relations can be interpreted with an intention to achieve a rapid scale and establish a 'super-platform' – although not as big and comprehensive as Amazon and Facebook – but to a level where investors aren't dependent on email or direct communication with the investor relations team.

The findings demonstrated that the team had an enhanced focus on commercialization and the inspiration from the streaming service platform Netflix was part of the plans for future add-ons. This accords with an earlier observation, which revealed that by having a workplace culture consisting of psychological safety and 'high-ceiling,' it enables both the internal and external

team to contribute to innovation and out-of-the-box thinking, which in the end, greatly contributes to competitive advantage and transforming capabilities (Teece 2017).

Although this study has been unable to demonstrate a direct link between when the self-renewal phase is over (Teece 2017), it is possible to hypothesize that when a digital platform is established, the platform owner must continue to develop and leverage the firm's dynamic capabilities to capture the value and maintain a controlling position. The findings proved that the team was inpatient and did not have a end goal for the portal, and in general, therefore, it can therefore be assumed that they were motivated to continue on its current path towards extensive value co-creation.

## 6.5 Implications

This study illustrates that there is a clear correlation between the theory of dynamic capabilities and the four phases of a digital platform lifecycle. Thus, this study demonstrates the need for an understanding of how companies can leverage their dynamic capabilities to be able to compete in an ever-changing and fast-paced digital business environment.

However, the thesis is struggling to prove to what extent the dynamic capabilities are a team effort or based upon individual knowledge and abilities. As this thesis exploits the findings from only one private equity firm, its findings cannot be generalized in a broader sense. Furthermore, as this thesis' case study has been conducted over a time period of only five months, it significantly limits the time to access and gather data.

Despite the implications described above, I still find that the thesis contributes to the literature. The field of digital platforms is a comprehensive field to indulge in, and as stated in the literature review, the contributions to the private equity industry were sparse in this particular area.

## 6.6 Summary

The purpose of this section was to interpret and discuss the results presented in section 5 and identify any contradictions or shortcomings found related to literature and the theoretical framework. The discussion contributed to gaining a deeper understanding of the dynamic capabilities theory in practice and sought to highlight new insights that can be used to further indulge in literature. Finally, the section outlined the study's implications.

# 7. Conclusion

This final chapter aims to revisit the research question and emphasize the study's primary findings. In addition, I discuss opportunities and areas for future research to indulge in.

## 7.1 Revisiting The Research Question

This study lies in the intersection of digital innovation, digital platforms and the theory of dynamic capabilities. As digital platforms have out-spun as a powerful tool of digital innovation, researchers have reported that under certain circumstances, any company of any size and prior experience with digital platforms can scale and grow to become platform leaders (Gawer and Cusumano 2012). However, research on digital transformation in the private equity industry found that the industry had a highly conservative approach to all things digital (Vermeulen et al. 2020). This intrigued my motivation to investigate how this particular Nordic private equity firm had managed to dive head-first into a digital platform.

Throughout my master thesis, I have presented, enlarged on, and explored how a private equity firm leveraged its dynamic capabilities to construct and build a digital platform to meet the information needs of its investors. The research question was compressed down to a goal of answering the following question:

*"How can a private equity firm leverage its dynamic capabilities to build a digital platform?"*

A combination of the findings from the case study and my own experience with working with the investor portal gave me the insights I needed to be able to answer the research question.

The findings inevitably demonstrate that the Nordic private equity firm has succeeded in establishing a digital platform by using its dynamic capabilities of sensing, seizing, and transforming. In the birth phase, the investor relations team explored their generative sensing capabilities through the identification of the new opportunity to increase the firm's scalability; for continued growth, the investor relations department could not depend on administrative tasks. However, a digital platform, which served all investors with all the required information was seen to enhance and enable growth. Allthough the team did not have much prior experience with digital platforms, it still leveraged its dynamic capabilities through experimenting and investigating through environmental scanning and interviews with other private equity firms and their own investors.

In the expansion phase, the team demonstrated that while on a tight budget, they found a reasonable solution with WordPress, an open-sourced CMS. This proves that there should be no expectations for how large a budget must be to compete in the platform sphere. Here, the team both leveraged its seizing and transformation capabilities. While literature emphasized the need for a business model, the team customized this through an OKR board. This enabled them to accelerate fast execution and an agile approach to new opportunities and features. It can also be argued that this agile approach to a platform strategy made it possible to establish the portal in only three sprints.

In the third phase of the digital platform lifecycle, the team enabled their sensing capabilities to invite the users into the platform by closing down prior routines of sending out information. This forced the users into the platform, as they inevitably needed the information provided on the portal at some point. The team enhanced the platform momentum by getting all users engaged within a short timeframe, as they launched during the time where investors wanted to access the quarterly valuations. In addition, they used the portal as a way of marketing for the firm – by showcasing the portal's features.

In the last and, according to Teece (2017), most important phase of the digital platform lifecycle, the investor relations team leverages its transforming capabilities to the maximum extent possible. The findings reported that the team was already in the midst of developing a similar platform aimed at another group of stakeholders: the firm's portfolio companies. This shows a great amount of maturity in the sense of leveraging the dynamic capabilities to the full extent. As the findings revealed that there was no end goal for the investor portal, the overarching goal of developing an ecosystem of services concluded with the assumption that the team had full control over the dimensions of their dynamic capabilities.

To finalize the conclusions, I will argue that the theory of dynamic capabilities in junction with the four phases of a digital platform lifecycle by Teece (2017) serves as a useful backdrop for companies looking to broaden their exposure to both customers and new technological opportunities. The dynamic capabilities theory is highly valuable for accelerating and capturing value through digital innovation, and based on the findings in this master thesis, it can be used as an enabler for sustaining competitive advantage.

## 7.2 Suggested Future Research

As stated in the introduction of this master thesis, the rapid digitization of innovation processes has led both companies and scholars to explore the field of new technological constructs to stay competitive (Nambisan et al. 2017; Amit and Zott 2012). Thus, this particular field of research is comprehensive and never-ending.

Due to the limited amount of research found in the field of private equity and digital platforms, I would first recommend future research to continue to look into this industry. Like all industries, the private equity industry will at some point be forced to engage in digital transformation to differentiate itself for investors. However, it might be assumed that a high return on investment will always remain a favorable differentiator for investors.

Second, I will recommend that future research look further into the theory of dynamic capabilities and its effect on the platform lifecycle in larger private equity firms to define whether it is individual capabilities or a team effort.

# References


Accenture. 2018. 'Digital Platforms Will Define the Winners and Losers in the New Economy'. https://www.accenture.com/_acnmedia/pdf-85/accenture-digital-platforms-pov.pdf.

Amit, Raphael, and Christoph Zott. 2012. 'Creating Value through Business Model Innovation.' *MIT Sloan Management Review*, no. SPECIAL COLLECTION • "TOP 10 LESSONS ON STRATEGY". http://marketing.mitsmr.com/PDF/STR0715-Top-10-Strategy.pdf#page=38.

Arnestrand, Frida, and Charlotte Lindblom. 2021. *Leveraging Dynamic Capabilities for Digitalization : A Study of the Investment Process in Private Equity*. http://urn.kb.se/resolve?urn=urn:nbn:se:kth:diva-301300.

Arundale, Keith, and Colin Mason. 2020. 'Private Equity & Venture Capital: Riding the COVID-19 Crisis'. In *A New World Post COVID-19*, by Monica Billio and Simone Varotto, Chapter_4133. Venice: Fondazione Università Ca' Foscari. https://doi.org/10.30687/978-88-6969-442-4/014.

Axelson, Ulf, Per Strömberg, and Michael S. Weisbach. 2009. 'Why Are Buyouts Levered? The Financial Structure of Private Equity Funds'. *The Journal of Finance* 64 (4): 1549–82. https://doi.org/10.1111/j.1540-6261.2009.01473.x.

Baxter, Pamela, and Susan Jack. 2015. 'Qualitative Case Study Methodology: Study Design and Implementation for Novice Researchers'. *The Qualitative Report*, January. https://doi.org/10.46743/2160-3715/2008.1573.

Bonina, Carla, Kari Koskinen, Ben Eaton, and Annabelle Gawer. 2021. 'Digital Platforms for Development: Foundations and Research Agenda'. *Information Systems Journal* 31 (6): 869–902. https://doi.org/10.1111/isj.12326.

Brink, H. I. L. 1993. 'Validity and Reliability in Qualitative Research'. *Curationis* 16 (2): 35–38. https://doi.org/10.4102/curationis.v16i2.1396.

Bughin, Jacques, Tanguy Catlin, and Miklós Dietz. 2019. 'The Right Digital-Platform Strategy'. *McKinsey Quarterly*, no. 2: 1–4.

Choudhary, Prashant Kumar, Anjali Kaushik, and Sangeeta Shah Bharadwaj. 2021. 'Societal Digital Platforms: Architecture and Design'. *Vision*. https://doi.org/09722629211056706.

Cohen, Wesley M., and Daniel A. Levinthal. 1990. 'Absorptive Capacity: A New Perspective on Learning and Innovation'. *Administrative Science Quarterly* 35 (1): 128–52. https://doi.org/10.2307/2393553.

Cusumano, Michael A., Annabelle Gawer, and David B. Yoffie. 2019. *The Business of Platforms: Strategy in the Age of Digital Competition, Innovation, and Power*. New York: Harper Business.

Easterby-Smith, Mark, Marjorie A. Lyles, and Margaret A. Peteraf. 2009. 'Dynamic Capabilities: Current Debates and Future Directions'. *British Journal of Management* 20 (s1): S1–8. https://doi.org/10.1111/j.1467-8551.2008.00609.x.

Eaton, Benjamin David. 2012. 'The Dynamics of Digital Platform Innovation: Unfolding the Paradox of Control and Generativity in Apple's IOS'. London: The London School of Economics and Political Science.

Eisenhardt, Kathleen M., and Jeffrey A. Martin. 2000. 'Dynamic Capabilities: What Are They?' *Strategic Management Journal* 21 (10–11): 1105–21. https://doi.org/10.1002/1097-0266(200010/11)21:10/11<1105::AID-SMJ133>3.0.CO;2-E.

Gartner. n.d. 'Definition of Platform (Digital Business) - Gartner Information Technology Glossary'. Gartner. Accessed 12 April 2022. https://www.gartner.com/en/information-technology/glossary/platform-digital-business.

Gatautis, Rimantas. 2017. 'The Rise of the Platforms: Business Model Innovation Perspectives'. *Engineering Economics* 28 (5): 585–91. https://doi.org/10.5755/j01.ee.28.5.19579.

Gawer, Anabelle. 2021. 'Digital Platforms' Boundaries: The Interplay of Firm Scope, Platform Sides, and Digital Interfaces'. *Long Range Planning* 54 (5): 102045. https://doi.org/10.1016/j.lrp.2020.102045.

Gawer, Anabelle, and Michael A. Cusumano. 2012. 'How Companies Become Platform Leaders'. *MIT Sloan Management Review*, no. SPECIAL COLLECTION • "TOP 10 LESSONS ON STRATEGY"b: 1–75.

Gawer, Annabelle. 2011. *Platforms, Markets and Innovation*. Edward Elgar Publishing.

Geminder, Gavin, and Jeff Kollin. 2018. 'The Digital Transformation Imperative. Why Private Equity Firms Must Digitally Transform to Compete.' https://assets.kpmg/content/dam/kpmg/us/pdf/2018/05/737580-nss-pe-digital-transformation-whitepaper-v18.pdf.

Gimpel, Henner, Daniel Rau, and Maximilian Röglinger. 2018. 'Understanding FinTech Start-Ups – a Taxonomy of Consumer-Oriented Service Offerings'. *Electronic Markets* 28 (3): 245–64. https://doi.org/10.1007/s12525-017-0275-0.

Hein, Andreas, Maximilian Schreieck, Tobias Riasanow, David Soto Setzke, Manuel Wiesche, Markus Böhm, and Helmut Krcmar. 2020. 'Digital Platform Ecosystems'. *Electronic Markets* 30 (1): 87–98. https://doi.org/10.1007/s12525-019-00377-4.

Helfat, Constance E., and Ruth S. Raubitschek. 2018. 'Dynamic and Integrative Capabilities for Profiting from Innovation in Digital Platform-Based Ecosystems'. *Research Policy* 47 (8): 1391–99. https://doi.org/10.1016/j.respol.2018.01.019.

Hinings, Bob, Thomas Gegenhuber, and Royston Greenwood. 2018. 'Digital Innovation and Transformation: An Institutional Perspective'. *Information and Organization* 28 (1): 52–61. https://doi.org/10.1016/j.infoandorg.2018.02.004.

Kahn, Kenneth B. 2018. 'Understanding Innovation'. *Business Horizons* 61 (3): 453–60. https://doi.org/10.1016/j.bushor.2018.01.011.

Kallio, Hanna, Anna-Maija Pietilä, Martin Johnson, and Mari Kangasniemi. 2016. 'Systematic Methodological Review: Developing a Framework for a Qualitative Semi-Structured Interview Guide'. *Journal of Advanced Nursing* 72 (12): 2954–65. https://doi.org/10.1111/jan.13031.

Kazan, Erol, Chee-Wee Tan, Eric T.K. Lim, Carsten Sørensen, and Jan Damsgaard. 2018. 'Disentangling Digital Platform Competition: The Case of UK Mobile Payment Platforms'. *Journal of Management Information Systems* 35 (1): 180–219. https://doi.org/10.1080/07421222.2018.1440772.

Khan, Muhammad Zubair, Zafir Ullah Khan, Affan Hameed, and Shehnaz Sahib Zada. 2021. 'On the Upside or Flipside: Where Is Venture Capital Positioned in the Era of Digital Disruptions?' *Technology in Society* 65 (May): 101555. https://doi.org/10.1016/j.techsoc.2021.101555.

Kim, Junic. 2018. 'Market Entry Strategy for a Digital Platform Provider'. *Baltic Journal of Management* 13 (3): 390–406. https://doi.org/10.1108/BJM-07-2017-0228.

Kitchenham, B., and S. Charters. 2007. *Guidelines for Performing Systematic Literature Reviews in Software Engineering*.

Lakshman, M., Leena Sinha, Moumita Biswas, Maryann Charles, and N. K. Arora. 2000. 'Quantitative Vs Qualitative Research Methods'. *The Indian Journal of Pediatrics* 67 (5): 369–77. https://doi.org/10.1007/BF02820690.

Lerner, Josh, Morten Sorensen, and Per Strömberg. 2011. 'Private Equity and Long-Run Investment: The Case of Innovation'. *The Journal of Finance* 66 (2): 445–77. https://doi.org/10.1111/j.1540-6261.2010.01639.x.

Manser Payne, Elizabeth H., James Peltier, and Victor A. Barger. 2021. 'Enhancing the Value Co-Creation Process: Artificial Intelligence and Mobile Banking Service Platforms'. *Journal of Research in Interactive Marketing* 15 (1): 68–85. https://doi.org/10.1108/JRIM-10-2020-0214.

Mattila, Juri, Timo Seppala, and Ilkka Lahteenmaki. 2018. 'Who Holds the Reins? – Banks in the Crossfire of Global Platforms'. SSRN Scholarly Paper 3456922. Rochester, NY: Social Science Research Network. https://doi.org/10.2139/ssrn.3456922.

Moore, James F. 1993. 'Predators and Prey: A New Ecology of Competition'. *Harvard Business Review*, no. 71.3: 75–86.

Nambisan, Satish, Kalle Lyytinen, Ann Majchrzak, and Michael Song. 2017. 'Digital Innovation Management: Reinventing Innovation Management Research in a Digital World'. *MIS Quarterly* 41 (1): 223–38.

Nersisyan, Yeva, and L. Randall Wray. 2010. 'The Global Financial Crisis and the Shift to Shadow Banking'. *European Journal of Economics and Economic Policies: Intervention* 7 (2): 377–400. https://doi.org/10.4337/ejeep.2010.02.13.

NSD. n.d. 'Norwegian Centre for Research Data'. NSD. Accessed 27 March 2022. https://nsd.no/en/.

Nylén, Daniel, and Jonny Holmström. 2015. 'Digital Innovation Strategy: A Framework for Diagnosing and Improving Digital Product and Service Innovation'. *Business Horizons* 58 (1): 57–67. https://doi.org/10.1016/j.bushor.2014.09.001.

Oates, Briony J. 2006. *Researching Information Systems and Computing.* London: Sage Publications Ltd.

Omarini, Anna. 2017. 'The Digital Transformation in Banking and The Role of FinTechs in the New Financial Intermediation Scenario'. *International Journal of Finance, Economics and Trade*, August, 1–6. https://doi.org/10.19070/2643-038X-170001.

Prado, Tiago S., and Johannes M. Bauer. 2022. 'Big Tech Platform Acquisitions of Start-Ups and Venture Capital Funding for Innovation'. *Information Economics and Policy*, May, 100973. https://doi.org/10.1016/j.infoecopol.2022.100973.

Reuver, Mark de, Carsten Sørensen, and Rahul C. Basole. 2018. 'The Digital Platform: A Research Agenda'. *Journal of Information Technology* 33 (2): 124–35. https://doi.org/10.1057/s41265-016-0033-3.

Schoemaker, Paul J. H., Sohvi Heaton, and David Teece. 2018. 'Innovation, Dynamic Capabilities, and Leadership'. *California Management Review* 61 (1): 15–42. https://doi.org/10.1177/0008125618790246.

Schreieck, Maximilian, and Manuel Wiesche. 2017. 'How Established Companies Leverage IT Platforms for Value Co-Creation - Insights from Banking', 17.

Seawright, Jason, and John Gerring. 2008. 'Case Selection Techniques in Case Study Research: A Menu of Qualitative and Quantitative Options'. *Political Research Quarterly* 61 (2): 294–308. https://doi.org/10.1177/1065912907313077.

Simon, Marilyn K, and Jim Goes. 2011. 'Developing a Theoretical Framework', 5.

Teece, David J. 2012. 'Dynamic Capabilities: Routines versus Entrepreneurial Action'. *Journal of Management Studies* 49 (8): 1395–1401. https://doi.org/10.1111/j.1467-6486.2012.01080.x.

———. 2017. 'Dynamic Capabilities and (Digital) Platform Lifecycles'. In *Entrepreneurship, Innovation, and Platforms*, 37:211–25. Advances in Strategic Management. Emerald Publishing Limited. https://doi.org/10.1108/S0742-332220170000037008.

———. 2018. 'Dynamic Capabilities as (Workable) Management Systems Theory'. *Journal of Management & Organization* 24 (3): 359–68. https://doi.org/10.1017/jmo.2017.75.

———. 2020. 'Hand in Glove: Open Innovation and the Dynamic Capabilities Framework'. *Strategic Management Review* 1 (2): 233–53. https://doi.org/10.1561/111.00000010.

Teece, David J., Gary Pisano, and Amy Shuen. 1997. 'Dynamic Capabilities and Strategic Management'. *Strategic Management Journal* 18 (7): 509–33. https://doi.org/10.1002/(SICI)1097-0266(199708)18:7<509::AID-SMJ882>3.0.CO;2-Z.

Törmer, Robert Lorenz. 2018. 'Internal Digital Platforms and Generative Mechanisms of Digital Innovation'. In *Proceedings of the 39th International Conference on Information Systems (ICIS)*. Association for Information Systems. AIS Electronic Library (AISeL). https://research.cbs.dk/en/publications/internal-digital-platforms-and-generative-mechanisms-of-digital-i.

Trabucchi, Daniel, and Tommaso Buganza. 2020. 'Fostering Digital Platform Innovation: From Two to Multi-Sided Platforms'. *Creativity and Innovation Management* 29 (2): 345–58. https://doi.org/10.1111/caim.12320.

Vaishnavi, V, W Kuechler, and S Petter. 2004. 'Design Science Research in Information Systems'. http://www.desrist.org/design-research-in-information-systems/.

Vermeulen, Erik, Mark Fenwick, Omololu Bajulaiye, and Ivona Skultétyová. 2020. 'Digital Transformation in the Hedge Fund and Private Equity Industry'. *Digital Transformation in the Hedge Fund and Private Equity Industry*, European Corporate Governance Institute - Law Research Paper Series, , February, 1–48.

Wang, Catherine L., and Pervaiz K. Ahmed. 2007. 'Dynamic Capabilities: A Review and Research Agenda'. *International Journal of Management Reviews* 9 (1): 31–51. https://doi.org/10.1111/j.1468-2370.2007.00201.x.

Webster, Jane, and Richard T. Watson. 2002. 'Analyzing the Past to Prepare for the Future: Writing a Literature Review'. *MIS Quarterly* 26 (2): xiii–xxiii.

Wikipedia. 2022. 'WordPress'. In *Wikipedia*. https://en.wikipedia.org/w/index.php?title=WordPress&oldid=1084802507.

Yin, Robert K. 2003. 'Case Study Research: Design and Methods (3rd Ed.)'. *Applied Social Research Methods*, no. 5.

Zahra, Shaker A., and Gerard George. 2002. 'Absorptive Capacity: A Review, Reconceptualization, and Extension'. *Academy of Management Review* 27 (2): 185–203. https://doi.org/10.5465/amr.2002.6587995.

# Appendix A: Ethical Approval





## Vurdering

**Referansenummer**
589500

**Prosjekttittel**
Digitizing the fundraising process in the private equity industry

**Behandlingsansvarlig institusjon**
Høyskolen Kristiania – Ernst G. Mortensens Stiftelse / School of Economics, Innovation, and Technology / institutt for teknologi

**Prosjektperiode**
07.02.2022 - 15.06.2022

Meldeskjema

| Dato | Type |
|---|---|
| 24.02.2022 | Standard |

**Kommentar**

ABOUT OUR ASSESSMENT
Data Protection Services has an agreement with the institution where you are carrying out research or studying. As part of this agreement, we provide guidance so that the processing of personal data in your project is lawful and complies with data protection legislation.

Data Protection Services has now assessed the planned processing of personal data. Our assessment is that the processing is lawful, so long as it is carried out as described in the Notification Form with dialogue and attachments.

TYPE OF DATA AND DURATION
The project will be processing general categories of personal data until the date documented in the Notification form.

LEGAL BASIS
The project will gain consent from data subjects to process their personal data. We find that consent will meet the necessary requirements under art. 4 (11) and 7, in that it will be a freely given, specific, informed and unambiguous statement or action, which will be documented and can be withdrawn.

The legal basis for processing general categories of personal data is therefore consent given by the data subject, cf. the General Data Protection Regulation art. 6.1 a).

PRINCIPLES RELATING TO PROCESSING PERSONAL DATA
We find that the planned processing of personal data will be in accordance with the principles under the General Data Protection Regulation regarding:

• lawfulness, fairness and transparency (art. 5.1 a), in that data subjects will receive sufficient information about the processing and will give their consent
• purpose limitation (art. 5.1 b), in that personal data will be collected for specified, explicit and legitimate purposes, and will not be processed for new, incompatible purposes
• data minimisation (art. 5.1 c), in that only personal data which are adequate, relevant and necessary for the purpose of the project will be processed
• storage limitation (art. 5.1 e), in that personal data will not be stored for longer than is necessary to fulfil the project's purpose

THE RIGHTS OF DATA SUBJECTS
As long as the data subjects can be identified in the data material, they will have the following rights: access (art. 15), rectification (art. 16), erasure (art. 17), restriction of processing (art. 18), data portability (art. 20).

We find that the information that will be given to data subjects about the processing of their personal data will meet the legal requirements for form and content, cf. art. 12.1 and art. 13.

We remind you that if a data subject contacts you about their rights, the data controller has a duty to reply within a month.

FOLLOW YOUR INSTITUTION'S GUIDELINES
We presuppose that the project will meet the requirements of accuracy (art. 5.1 d), integrity and confidentiality (art. 5.1 f) and security

We presuppose that the project will meet the requirements of accuracy (art. 5.1 d), integrity and confidentiality (art. 5.1 f) and security (art. 32) when processing personal data.

When using a data processor for online interviews the processing must meet the requirements under the General Data Protection Regulation arts. 28 and 29. Only use a data processor that your institution has an agreement with.

To ensure that these requirements are met you must follow your institution's internal guidelines and/or consult with your institution (i.e. the institution responsible for the project).

NOTIFY CHANGES
If you intend to make changes to the processing of personal data in this project it may be necessary to notify us. This is done by updating the Notification Form. On our website we explain which changes must be notified: https://www.nsd.no/en/data-protection-services/notification-form-for-personal-data/notify-changes-in-the-notification-form

Wait until you receive an answer from us before you carry out the changes.

FOLLOW-UP OF THE PROJECT
We will follow up the progress of the project at the planned end date in order to determine whether the processing of personal data has been concluded.

Good luck with the project!
Contact person: Silje F. Opsvik

# Appendix B: Interview Guide

| Platform lifecycle | Dynamic capability | Questions |
|---|---|---|
| Introduction | - | • What is your role & job title?<br>• How long have you been working in the industry?<br>• What is your educational background?<br>• Do you have any prior knowledge working with digital platforms? |
| Birth | Sensing | • How did you identify the need for an investor platform?<br>• What was your initial hypothesis going into the development of the platform?<br>  ○ Did you scope out customer demands etc.?<br>• Does the platform solve any of your admin tasks?<br>• Do you have a business model, strategy or concept note for the portal? User needs, cost model, or distribution channels.<br>• How do you scan the environment for new technological opportunities?<br>  ○ Do you have any organizational routines for inspiration or information sourcing? |
| Expansion | Seizing; transformation | • How do you identify any gaps or missing elements in the portal?<br>  ○ Do you have any routines for this?<br>• How long does it normally take for a treat or an opportunity to be found, evaluated and executed on? Identification to action. How agile are you?<br>• How do you ensure that the platform is continually further developed?<br>  ○ Do you have any routines to ensure consistency? |
| Leadership | Sensing; transforming | • Do you collect inspiration from peer's to how to further develop the platform, and how agile are you to act on this opportunity?<br>• Do you have a "platform-strategy" that your team follows? |
| Self-Renewal | Sensing; transforming | • Do you have any add-ons, new ideas in the pipeline, or already in development for the platform ecosystem? |