

Master Thesis

Platforms and Strategies

Understanding how companies can align
platforms and strategies

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Executive Summary

This thesis explores the relevance of aligning platforms with a business's overall strategy. The aim of this thesis is to investigate whether companies have platform specific strategies and what those respective strategies may look like. Relating topics of strategy, traditional pipeline structure, platforms, and value will be considered using existing theories and literature.

The research will examine the intent that drives a company's platform use whether it is new product development, customer feedback or engagement, extending reach, or incremental innovation. The research method applied in this thesis follows an explorative qualitative approach rooted in abductive logic. Empirical evidence was collected through a process of semi-structured interviews relying on open-ended questions. The data sample includes experts in from three different categories; platform-based firms, established firms using platforms, and digital consultancies. The split between categories is as follows; one platform-based firm, two established firms using platforms, three digital consultancies. Each interviewee held a senior position within the firm and in some cases were also Co-Founders of the firm itself or a division within the firm. Interviewing founders or people in executive positions at the firms added a level of richness and quality to the data that helped to offset the smaller sample size.

The analysis consists of two parts. First, the interviews are independently analysed in a chronological fashion. Each respective interview analysis is structured by key topics or themes rather than question by question. Secondly, both insights and key themes identified in the individual interview analyses will be discussed in their relation to previously reviewed and new literature. The key themes discovered across interviews are internal innovation, organisational change, and value.

Finally, as a culmination of the combined research, data collection, and analysis process answers to the research question will be presented in the discussion and conclusion. Thus, a key finding is that important for companies to have a dedicated team responsible for managing platform dynamics as they are a supporting function to the firm's overall strategy. A proposal for a revised research question, an acknowledgment of limitations, and suggestions for further research conclude this thesis.

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Abstract

This thesis explores the relevance of aligning platforms with a business's overall strategy. It will investigate whether or not companies have platform specific strategies and what those respective strategies may look like. The research method applied in this thesis follows an explorative qualitative approach rooted in abductive logic. Empirical evidence was gathered using semi-structured interviews built on open-ended questions. Interviews were conducted between researchers and experts within the field of digitalisation and platform implementation from platform-based companies, digital consultants, and established companies. As a result of the analysis three key learnings were identified. **Internal innovation** is a key capability in order for firms collaborate with external companies. **Organisational change** is used in order to develop new ways of thinking and working both internally and externally. **Value creation** through platforms can be a difficult concept for established firms to grasp as there is a disconnect from traditional financial incentives and returns. Based on these results it is important for companies to have a dedicated team responsible for managing the platform dynamics as they are a supporting function to the firm's overall strategy.

Introduction

Platforms are and have been an aspect of businesses both past and present, and will continue to be in the future. However, the way in which platforms are being used today has evolved to encompass a much broader scale. Despite platforms historically being present in some shape or form, the term platform itself has only relatively recently (in the past two decades) experienced an increase in attention (Gatautis, 2017). Tewari and Sareen (2014) point out that the term platform has been used for the past 25 years in various settings such as economics, management, business administration, marketing, and more. The phenomenon of platforms can also be observed at varying levels of analysis and in different organisational settings, including within the firm itself, across supply chains, as well as across industry ecosystems (Gawer, 2014).

The increased interest in platforms is due largely in part to the rapid digitalisation that was born out of the information age, specifically with the Dotcom boom of the early 2000s. This era made knowledge more accessible and exchangeable meaning that a company's toolset has also expanded as a result. Moreover, the internet has developed into an open, cost effective, and ubiquitous network facilitating unprecedented reach while also reducing geographical constraints (Sawhney *et al*, 2005). At the same time this change in information technology has reduced the need for companies to own physical infrastructure and assets. Digitalisation and IT have also had an impact which can be seen in the ease and reduced cost of building and scaling up platforms. This has in turn facilitated simplicity and ease in terms of participation which also has further implications such as; strengthening network effects and increasing the capacity to capture, analyse, and exchange large quantities of data thus heightening a platform's value to all involved groups (Van Alstyne *et al*, 2016).

Hsieh and Wu (2019) suggest that as both the internet and technology continue to evolve, more businesses are shifting their focus to platforms. Kenny and Zysman (2020) go on to propose that as a result a digital platform economy is emerging, creating online structures that enable a wide range of human activities. They then argue that this results in a pathway for radical change in how we work, socialise, and create value in the economy, and subsequent competition for resulting profits has developed. This

“platform economy” or “digital platform economy” encapsulates a rapidly growing number of digitally enabled activities in business, politics, and social interactions. The digital platforms that have emerged are varied in both structure and function. Platforms like Uber and Airbnb utilise cloud-based tools which have led to significant changes in an assortment of incumbent businesses. Virtual marketplaces like Amazon, Etsy, and eBay have had a significant impact on brick and mortar businesses. Amazon Web Services also provides the infrastructure and tools others can use to build their own platforms. Finally, digital platforms like Facebook and Google offer social media and search functionality yet, like Amazon, also provide a digital infrastructure on which other platforms can be built. The impact of platforms like these has been so far reaching that it has led to a reorganisation of a wide variety of markets, workflows and work activities, and ultimately value creation and capture (Kenny and Zysman, 2020). Accenture (2016) found that 88% of Fortune 500 companies are searching for opportunities to use platforms and are actively investing in platforms. Furthermore, Accenture (2016) found that the investment in platform development grew steadily in the period from 2010 – 2015 in the Americas Region, EMEA Region (Europe, the Middle East, and Africa), and the APAC Region (Asia-Pacific). From this it is clear that the growing attention to platforms has been followed by increased investment into platform development (Gatautis, 2017). Kenney and Zysman (2020) further summarise what we know about platforms stating, “platforms are in many cases disrupting the existing organisation of economic activity by resetting entry barriers, changing the logic of value creation and capture, playing regulatory arbitrage, repacking work, or repositioning power in the economic system”. Although we can clearly see the effects of platforms as outlined by Kenney and Zysman (2020), the use of platforms for business model innovation (Altman and Tripsas, 2015) and the impact they have on an established firm's strategy remains relatively unexplored. This imbalance and gap led us to choose our research topic and focus on how an established firm's strategies must change in accordance with the platforms they utilise.

Purpose and Relevance of Thesis

During our masters program studying Organisational Innovation and Entrepreneurship, we developed an understanding of different approaches to innovating a company, whether through ideation, internal corporate venturing, design thinking or more. An aspect we felt was missing however, was an understanding of how outside environments and businesses can help develop internal structures and processes and not only limit certain decision making. While collaboration and open innovation are topics we were introduced to, we wanted to understand how technology is influencing those themes, specifically in practice. This interest was intensified during an internship at a corporate innovation platform where one of us was able to develop broad insights into the dynamics of platform use and effects it has on different stakeholders involved. This led both of us to explore literature around platforms and what we discovered was that the revolving literature focuses on how to build platforms using a very theoretical approach which we did not see working in practice. We also found limited literature on incrementally adapting the company's overall strategy to working with platforms, but rather complete reorganisations of a company's strategy. For us, this seems to be an academically unexplored area that would provide a good foundation for our thesis.

Problem Statement

The aim of our thesis is to investigate whether companies have platform specific strategies and what those respective strategies may look like. In order to accomplish this, we are examining the intent that drives a company's platform use whether it be new product development, customer feedback or engagement, extending reach, or incremental innovation. Furthermore, how does the reasoning behind platform usage, internal and or external, affect a company's overall strategy. This led us to the development of our main research question:

Research Question: How can companies align their platforms and strategies?

With this research question we aim to identify approaches companies can use in order to align their platforms and their strategies. Furthermore, it will provide us with a better understanding on how platform and strategy relate to one another.

Sub Question: What effect, if any, does being a platform owner or user have on a company's strategy?

This sub question will help us understand what results from different levels of involvement with platforms. Connecting to this are themes of path dependency which in our view have a direct impact on a company's strategy and therefore is a relevant aspect to explore.

Sub Question: How can companies leverage platforms to create more innovative ecosystems?

An essential part of a platform is its ecosystem, therefore exploring how platforms affect an ecosystem is relevant as a first step. Once this is understood, highlighting how companies can achieve more innovative ecosystems will support us in developing ways how companies can align their strategic objectives with their platform activities.

Thesis Structure and Overview

Literature Review Overview

Our literature review will begin by assessing different strategic theories that have successful applications in practice in the past. From strategy we will move on to discuss the shift from a traditional pipeline business to a platform way of thinking as it relates to the literature. The third section will be dedicated to the review of platform focused literature. This section will begin by examining how the term platform has evolved over time. We will then introduce the definition of platforms that will be used for our purposes as well as a more expansive list of platform characteristics. Moving on we will evaluate the challenges associated with the number of platform definitions currently in circulation. Following this, we will examine how and why firms use platforms as well as an overview of a range of platforms for innovation that can be found in both internal

and external contexts. Finally, we will review some recurring themes identified across platform literature. This chapter will then be concluded by a brief look at value creation and the significance it has in relation to platforms.

Methodology Overview

The research method applied in this thesis follows an explorative qualitative approach rooted in abductive logic. In this chapter we will begin by reviewing how we constructed our research question to fit an explorative qualitative research design while also providing an overview of the exploratory and qualitative methodology. An overview of abductive logic will then be presented and compared against other common logic approaches, deductive and inductive. A reflection of qualitative data collection will then be presented. Following this we will explain how we chose our data sample, structured the interviews, and how we conducted the interviews. In conclusion we will review some assumptions we had prior to the interviews, which will then be further reviewed in the Analysis Chapter using abductive logic.

Analysis Overview

The analysis will be conducted in two parts. In part one, we will independently analyse each interview in a chronological fashion. Because of the semi-structured and open-ended interview design the individual analyses are structured by noteworthy topics rather than by questions. In part two we identified commonalities across the interviews that resulted in an overarching set of themes that we had not previously considered in regard to their relation and impact on how a firm incorporates platforms into their company strategy. We found the themes of internal innovation, organisational change, and value to be important themes that warranted further review. Expanding on our abductive logic approach we then discussed how our insights and these new themes relate to broader literature.

Discussion and Conclusion Overview

In the discussion we will begin by reiterating how our research topic is relevant to the field of social science. We will then revisit our research question and present a set of answers derived from both our research, data collection, and subsequent analysis. After answering our initial question, we will reflect on the process and propose changes we would make to our question as a result. This will be followed by acknowledging and offering some limitations of our thesis. Finally, we will conclude by identifying gaps or inconsistencies in the literature before suggesting avenues for further research.

Literature Review

Strategy

A strategy is focuses on a determined set of goals and objectives in order to utilise a firm's competitive advantage. Grant (1995) characterizes a business strategy as the way a firm competes within a specific industry. Over time, different theories on strategic approach have been developed. The most common strategic management theory applied is the profit-maximising and competition based theory which roots back to Adam Smith who denotes that businesses will always act in their own interest to maximise their profits which results in a benefit for society (Tengku and Chairal, 2010). Todays the theory has developed to the understanding that a businesses main objective is to maximise profits and develop a sustainable competitive advantage (Porter, 1981) in a competitive field. Survival-based theory that stems from Darwin's theory of evolution and natural selection focuses on the benefit of society. Khairuddin (2005) emphasizes that survival-based view in modern economics in order for organisations to survive, they should "deploy strategies that should be focused on running very efficient operations and can respond rapidly to the changing of competitive environment". Another theory in the strategic management field is contingency theory. Early notions of contingency theory reason that an organisations performance is linked to the suitability of different contingencies such as but not limited to organisational size, organisational structure, and competitive environment (Luthans and Stewart, 1977). Over time this

theory has found different applications and has added to the list of contingencies, but the base theory has not changed in a substantial way. Another strategic management theory is Edith Penrose's Resource based view which was later developed into the VRIN framework. Barney (2005) outlines the resource-based view as "firms can only earn sustainable returns if they have superior resources and those resources are protected through isolation preventing their diffusion throughout the industry". The VRIN framework implies that in order for firms to generate a sustained competitive advantage, their resources have to be valuable, rare imperfectly imitable and non substitutable.

New business strategies continue to emerge as the modern demand for conducting business changes and shifts towards more open models of strategy. Whittington *et al* (2011) defines open strategy as "increased transparency and inclusion regarding strategic issues involving both internal and external stakeholders", whereby two elements are emphasised: transparency and inclusion. The roots of open strategy stem from open innovation which can be described as the way businesses utilise an external knowledge pool for ideas to apply to their business. Thus, aiming to acquire new ideas for products and processes for their internal knowledge base to act on. This is often done through different forms of collaboration.

Pipeline to Platform

The adoption of platform strategies for traditional economy pipeline businesses is crucial in order to assure sustainable growth. But for us to understand the need for this evolution, we have to first examine how pipeline businesses differ from platform businesses. Pipeline businesses have a classic value-chain model and therefore "create value by controlling a linear series of activities" (Van Alstyne *et al*, 2016). It is important to note that pipeline and platform strategies in a business are not mutually exclusive. Pipeline giants such as Walmart, Nike and GE are rushing to integrate platforms into their business models. Industries that have traditionally been led by pipeline businesses, crumbled once platforms entered the market as seen by for example Apple in mobile devices. Van Alstyne *et al* (2016) suggests three key shifts

when moving from pipeline to platform; (1) From resource control to resource orchestration, (2) From internal optimisation to external interaction and (3) From focus on customer value to a focus on ecosystem value. With these shifts in perspectives, a change in metrics is highly pertinent. Especially for managers it is highly relevant to measure metrics such as interaction failure, engagement, match quality and evaluating the network effects on platforms. It is important to note that platform success is not exclusively achieved through a large volume, but through high value interactions with rich quality particularly at the early stages of platform integration. Van Alstyne *et al* (2016) also highlight that “because platforms require new approaches to strategy, they also demand new leadership styles”. Thus, suggesting that when adopting platform strategies, companies must identify and develop new core competencies as well as a new mindset in order to plan, govern and expand their platforms in conjunction with their existing pipeline businesses.

Platforms

Platform Review Overview

We will begin the review of platform literature by examining how the term platform has evolved over time. For our purposes we will use a definition of platforms suggested by Parker *et al* (2016) as the foundation for how we interpret platforms as we saw their definition to be well rounded and the most applicable. In addition to the definition a table of platform characteristics will be presented in Table 1. We will then highlight challenges that have derived from the various definitions of platforms currently present. Following an investigation of the term itself we will look into how and why firms use platforms. From there we will present a range of platforms that can be found in both internal and external contexts to help companies leverage their resources and capabilities and facilitate innovation (see Appendix A). To conclude the chapter, we will review some recurring themes we found across platform literature. These themes include two-sided market effects, network effects, and ecosystems.

How the Term Platform Evolved Over Time

The concept of platforms as well as the term itself has been in existence for years however, the last decade has seen a resurgence in attention given to platforms by both researchers and practitioners. The term platform has been applied over the last 25 years across economic, management, business administration, marketing, or other discourses (Tewari and Sareen, 2014). This increase is due in large part to new innovations in information technology, digitalisation, and a rapidly globalising world (Hsieh *et al*, 2019). Appendix A gives an overview of how the definitions of platforms have evolved over time. For our purposes we will use the definition of platforms presented by Parker *et al* (2016) as the foundation for how we interpret platforms. Parker *et al* (2016) defines platforms as, “a new business model that connects people, organisations and resources through technology in an interactive ecosystem in which incredible amounts of value can be created and shared”. Building on this definition and the understanding we developed from other platform definitions identified using Appendix A, we propose a set of characteristics of platforms outlined in Table 1.

[Table 1: Characteristics of Platforms](#)

Characteristics of Platforms	
● Connects people both inside and or outside the firm	● Interactive in nature
● Places an emphasis on different resources	● Knowledge is exchanged as an asset
● Does not have to come in the form of a disruptive technology	● It is not restricted to New Product Development (NPD)
● It is not just an integrated suite of software products or digital infrastructures	● Can be used to help improve and streamline existing firm business practices and operations.
● Value creation is an outcome of platform interaction	● Creates an environment for collaboration

As demonstrated in Appendix A, there are numerous definitions of platforms. This varying language surrounding and defining platforms creates problems both within and outside the focal firm. Simpson *et al* (2006) provide an example of how this can be problematic within the firm. For instance, management may use the term platforms to define product lines, marketing may reference customer options as product modules, and engineering may call the core technology of the firm their platform (Simpson *et al*, 2006). These differing views must come together in order to realise uniform goals of

platform benefits in line with the overall firm strategy. However, the challenge therein lies in how to define a platform or how to best merge the varying definitions to allow the firm as a whole to be in alignment. Mirroring this suggestion by Simpson *et al* (2006), Govindarajan (2005) from Hewlett-Packard stresses the need for the exploration of how to generalise the core ideas of platforms with fundamental dimensions like geography, lifecycle, stakeholder, and portfolio to make platform definition more applicable to “non-traditional” areas such as service systems.

In 2004 and 2005 two industry focused conferences highlighting platform design, development, and deployment as a means to increase variety, shorten lead-times, and reduce development and production costs were held in the United States. Together the conferences featured presentations from both academia and more than 20 companies sharing their successes and frustrations with platform product family planning, platform-based product development, and platform design and deployment. From these meetings it became clear that the challenges surrounding the term platform also exist between academia and industry. For instance, Simpson *et al* (2006) argue that within academia a low level of application is evident in the way literature on platforms propensity to use the same, dated examples of platforms in industry. Simpson *et al* (2006) go on to point out that numerous tools from academia are not applied in practice as they often cannot scale well to complex or “messy” situations. However, the authors also offer possible solutions to remedy the disconnect. Some of these solutions include academia working more closely with industry experts during research through cooperative workshops, having students spend more time with host companies, and host companies making greater efforts in data availability and release (Simpson *et al*, 2006).

How and Why Firms Use Platforms

We live in an age of platforms and there exists a seemingly endless way in which firms can utilise platforms as well as the reasons underpinning those uses of platforms. As such platforms are playing an increasingly more important role in a business’s activities and are no longer restricted to retail or high tech but are visible across multiple

industries. According to Kenney *et al* (2016) when considering the platform economy, “we are in the midst of a reorganisation of our economy in which the platform owners are seemingly developing power that may be even more formidable than was that of the factory owners in the early industrial revolution”. This sentiment is mirrored by Parker *et al* (2016) who argues that revolutionary platforms characterise the era we live in as platforms are dominating the market in the most varied sectors transforming people’s lives. Therefore, with a flourishing platform economy due largely in part to advances in information technology and a rapidly globalising world, it is no surprise that innovation was a recurring theme in the literature when it came to the reasons a firm utilises platforms (Hsieh and Wu, 2019). The pervasiveness of penetration by digital technology specifically has exposed a key function of a platform as one of the most important traits of the innovation process and made it a central focus of many firm’s innovation activities (Ruggieri *et al*, 2018). Though firms differ in their degree of organisational integration for acquiring external research and development (R&D) there are two core motivations driving external sourcing; improved efficiency through economies of scale and access to innovations (or innovation producing capabilities) not present in the focal firm (West and Bogers, 2013). Therefore, platforms as modular systems are good for facilitating innovation (Gawer, 2014).

The use of platforms to facilitate New Product Development (NPD) – ideation, concept development, product design, product testing, and product introduction – was also heavily discussed in the literature (Sawhney *et al*, 2005). When Rochet and Tirole (2003) characterised platforms as two-sided markets the term was permeating through NPD literature where it ultimately gave way to a well-developed theoretical perspective on platforms and their effect on innovation (Gawer, 2014). In NPD or New Services Development (NSD) digital platforms specially can promote an environment for the development of new products/services. Digital platforms of innovation communities therefore have the potential to play an important role in creating, shaping, and disseminating innovation activities. Firms may use a digital platform’s infrastructure of online social communities to promote more active cooperation and interaction with customers. Thus, online communities are appropriate for the development of innovative ideas with users. Furthermore, as digital platforms in the form of social media enable

consumers to become co-producers and co-designers of their experiences through online customer participation it is also a useful tool for NPD/NSD (Hsieh and Wu, 2019). Overall the digital platforms, specifically their infrastructure component of the internet, has enhanced the ability of firms to engage with customers in their product innovation.

A big focus in literature also centers around the use of platforms from a sales and marketing perspective. Though this was not a focus area for us we felt it was still important to include a brief overview and thus provide a well rounded presentation of platforms. Thus in this capacity there is a difference between the reasons consumers use platforms versus the reasons a firm uses platforms. Gatautis (2017) adapted a case study conducted by Oxera (2016) of four EU countries (Germany, France, Spain, and Poland) to identify the main reasons why consumers and companies use platforms, as outlined in Table 2 (Gatautis, 2017). Differences also exist between the types of users of platforms. Ernst and Young (2016) proposed four distinctive types of users that can be identified. The first being the *platform owners*, organisations that own the platform and are responsible for developing and maintaining functionality. Second are *key partners*, organisations involved in a platform's activities who also offer opportunities to platform owners to extend value creation and transfer possibilities. Third are *peer producers*, various organisations contributing to a platform's activities with value offerings and seeking opportunities to improve their value offerings and acquire additional revenue. The list is rounded out by the fourth group of users, *peer consumers*. This group is made up of people or organisations. acting as end users of the platform who derive value from the use of the platform (Ernst and Young, 2016).

[Table 2: Consumer Facing Platform Usage - Firms Versus Consumers](#)

Consumer Facing Platform Usage Firms versus Consumers (Adapted from Accenture, 2016)	
Firms	Consumers
● As a low-cost channel for collecting consumer feedback	● As an online marketplace
● Using platforms is generally much cheaper than brick and mortar stores	● For information
● Facilitate reach to a wider market	● To make comparisons
	● For communication
	● For entertainment

There is no one size fits all application when it comes to platforms. Depending on a firm's size, needs, and industry the capacity and level of importance placed on platforms will vary. Literature places heavy emphasis on firms using platforms as sources of innovation and for NPD. However, Cusumano (2012) cautions that the “impact of platforms on innovation and competition still needs to be refined” as the need for a better understanding of platforms is crucial. Parker *et al* (2016) extends this by suggesting that firms must embrace platform thinking to compete in the future. Furthermore, Gatautis (2017) proposes that this way of thinking should be applied to all industries stating, “practically any industry in which information is an important ingredient is a candidate for the platform revolution”, highlighting that even industries that have not been impacted by platforms yet, should seek to explore the impact they could have.

Types of Platforms

The phenomenon of platforms can be observed at different levels of analysis as well as in various organisational settings including within firms, across supply chains, and across industry ecosystems (Gawer, 2014). As a result of this phenomena there are numerous types of platforms that have emerged, varying in function, scope, and size. Regardless of setting platforms can be broken down into two broad categories, internal and external. An internal platform is a company, product or process specific platform which Gawer and Cusumano (2014) defined as a set of assets organised in common structure that an organisation can then efficiently develop and produce a stream of derivative products. These platforms allow owners to achieve economic gains through the reuse or redeployment of assets from across families of products developed by the firm or close suppliers. Conversely, an external platform can be defined as the products, services, or technologies that act as a foundation for external innovators (organised as an innovative business ecosystem) to develop or enhance their own complementary products, technologies, or services. External platforms, therefore, allow firms to manage a division of innovative labour originating outside the borders of the firms or its supply chain (Gawer and Cusumano, 2014).

Appendix B provides a broad overview of a range of platforms that can be found in both internal and external contexts to help companies leverage their resources and capabilities and facilitate innovation. In this review we do not consider the internet as a platform in and of itself, as it has become a standard tool and function firms utilise in varying capacities across industries worldwide. Therefore, for our purposes we are applying Cusumano's (2010) definition of standards to the internet. Cusumano (2010) defines standards as rules of protocols specifying how to connect components to a platform, or how to connect different products and use them together, meaning that standards alone are not platforms. However, in the case of digital platforms the internet is classified as a vital form of infrastructure along with data centers, open standards, and consumer devices. (Constantinides *et al*, 2018). Within these parameters, social networking platforms like Facebook or Twitter (linking together networks of users with providers of different services and applications), e-commerce sites like Amazon or Etsy (bringing together buyers and sellers), and search engine platforms like Google (connecting advertisers and web users) fall under the umbrella of digital platforms (Muzellec *et al*, 2015).

Reoccurring Themes Across Platform Literature

Across the literature on platforms we came across during our research we discovered the presence of several recurring themes. Some of these themes are covered by Kim (2015). Though Kim (2015) presents these as three important characteristics when describing platforms, they are also indicative of common themes in platform literature. The themes include; *two-sided market effects*, *network effects*, and *ecosystems*. Accenture (2016) later builds on points presented by Kim (2015) which also encompasses themes that span across platform literature. The first addition was a *distribution of power*, meaning platforms enable scaling at minimal cost and supply-side platform participants can then generate profits. The second addition was *asymmetric growth and competition*, meaning platforms provide opportunities for the same companies to compete in the same and complementary markets.

Multi-sided markets have flourished with the rise of digitalisation brought on by information technology and the internet (Muzellec *et al*, 2015). A widely adopted approach of these two-sided markets references a platform's ability to act between different types of consumers and an ability to match value between them (Gatautis, 2017). Furthermore, two-sided market theory states that internet platforms must “get both sides of the market on board” in order to be viable (Rochet and Tirole, 2003). Thus, two-sided markets denote two distinct user groups that provide each other with network benefits (Muzellec *et al*, 2015).

Armstrong (2006) defines two-sided markets as “markets involving two groups of agents interacting via ‘platforms’ where one group’s benefit from joining a platform depends on the size of the other group that joins the platform”. There is a strong connection present in literature between two-sided markets and the second recurring theme of platform network effects. In fact, this connection is so predominant that Rysman (2009) states, “in a technical sense, the literature on two-sided markets could be seen as a subset of the literature on network effects”. Network effects reference the increase of value through a growing number of users (Gatautis, 2017). According to Cusumano (2010) a critical point of network effects is that the more external adopters in the ecosystem that create or use complementary innovations, the more valuable the platform (and the complements) become. This results in a dynamic fueled by direct and or indirect network effects which encourages more users to become more involved with the platform, more complementors to enter the ecosystem, and more users to adopt the platform and the complements (Cusumano, 2010). Direct network effects occur when the benefit of a technology to a user depends positively on the number of other users of the technology. In markets where network effects are strong, there is little competitive space for more than a few players (Constantinides *et al*, 2018). Conversely indirect network effects suggest a pre-existing underlying interdependency (and complementarity) among the demands from two or more types of consumers. In turn, the complementarity fuels a self-reinforcing feedback loop of adoption “from both sides” which has the effect of reinforcing incumbent platform owners' early installed base advantages (Gawer, 2014).

A great deal of the extended literature focuses on the theory of ecosystems and how platforms are transforming the business landscape. While some platforms may lead to the creation of a new ecosystem it is also common for firms to join an existing ecosystem through their use of external platforms. Therefore, we felt it was important to review the dynamics present and created between platforms and ecosystems by introducing a third theme in platform literature. Broadly, ecosystems can be observed as a group of interacting firms depending on each other's activities. Jacobides *et al* (2018) further define ecosystems as groups of firms that have to deal with unique or super modular complementarities that are nongenetic which requires the creation of a specific structure of relationships and alignment to create value. A similar definition is presented by Moore (1996) who identifies ecosystems as an economic community supported by foundations of interacting organisations and individuals, in a sense the organisms of the business world. Platforms specifically in the context of Moore's definition then build economic communities of consumers and or organisations, and then sustain them through the coordination of value propositions.

Jacobides *et al* (2018) found that studies by (Ceccagnoli et al., 2012; Cennamo and Santaló, 2013; Gawer and Henderson, 2007) centered on platform-based ecosystems examined the parallels between both platform sponsors and its complementors. Jacobides *et al* (2018) continues to draw on previous works to describe the parallels as being initiated by the effect of the platforms technological intricacy has on the complementors' innovation ability (Kapoor and Agarwal, 2017), platform interfaces and standards (Gawer, 2014), contention between competing platform ecosystems (Cenamo and Santaló, 2013), or the at the industry level the platforms leadership role (Gawer and Cusuamo, 2002). In other words, the platform ecosystem stream examines how actors organise around a platform whereby connecting to the platform complementors can generate complementary innovation and gain access. Furthermore, Wareham *et al* (2014) suggest that ecosystems should be viewed as semi regulated marketplaces that enable transactions between groups of users. These users should be under the guidance and direction of the platform owner in order to facilitate entrepreneurial activities within the ecosystem.

A distinction can also be made between the types of members in an ecosystem. (Van Alstyne *et al*, 2016) go on to recognise four distinct types of players in the ecosystem structure of platforms. The first are the *owners* of the platforms who control their intellectual property and governance. Second are the *providers*, serving as the platforms interface with users. Third are the *producers*, creating their offerings followed by *consumers* who use the respective offerings. All of these players within an ecosystem must contend with forces within said ecosystem. (Van Alstyne *et al*, 2016) proposes that platform businesses must constantly encourage activity that adds value to the firm within an ecosystem while at the same time monitoring participant activity that may be considered depletive, which extracts value from the firm. Echoing (Van Alstyne *et al*, 2016) sentiment, Teece (2007) posits that ecosystems represent the environment a firm must monitor and react to which affects its dynamic capabilities and its ability to build sustainable competitive advantage.

Value Creation

In order for platforms to be effective in a business, they have to hold value to stakeholders. Bowman and Ambrosini (2000) suggest two aspects of value: use value and exchange value. Use value represents the “specific quality of a new job, task, product, or service as perceived by users in relation to their needs” (Bowman and Ambrosini, 2000). In other words, does this new service provide a benefit of performance, speed, or quality to either the employee or the target consumer? On the other hand exchange value is defined as “either the monetary amount realised at a certain point in time, when the exchange of the new task, good, service, or product takes place, or the amount paid by the user to the seller for the use value of the focal task, job, product, or service” (Bowman, 2000). Aspects of this definition of value creation is supported by Lepak *et al* (2007) who advocates that value creation “depends on the relative amount of value that is subjectively realised by a target user... and that this subjective value realisation must at least translate into the user’s willingness to exchange a monetary amount for the value received”. Having developed an understanding of value creation, we explore how platforms can be used to do this.

Gartner (2016) claims that “platforms are new foundations for value creation”. Furthermore, the reach of platforms is increasing as they are “penetrating different industries and facilitating cooperation and value creation between different companies” (Accenture, 2016) highlights the need for more companies to adopt platforms to their suite of resources. Additionally, as value is not only created from inside the firm, facilitating co-creation of value for the firm from customers and other partners is a valuable ability for companies. Chesborough *et al* (2006) support this as “digitalisation coupled with the powerful democratisation of innovation had a disruptive effect of redistributing control across online participants and the applications they use to interact and co-create value”. Furthermore, Lepak *et al* (2007) identifies three dimensions of value creation as the individual, the organisation and society. Thus, supporting Chesborough *et al* (2003) in the co-creation of value and supporting the use of platforms in general that focus on two or more dimensions of value creation. This overall assumption is further supported by Parker *et al* (2016) as “firms must now manage value creation that occurs externally just as carefully as they manage the value they create internally”. However, Parker *et al* (2016) goes one step further by signifying that value creation from the outside is becoming more important than from within which stresses the need of platforms to be incorporated into businesses even more.

Methodology

Overview

This thesis applies an explorative qualitative research approach rooted in abductive logic to examine how firms utilise and adapt their strategy to incorporate platforms. Our data sample encompasses a total of six interviews comprising one platform business, two established corporations, and three digital consultancies. The data collection method was purely qualitative as it was a combination of semi-structured interviews, background research on the interviewee and company, and observations. Background research and subsequent text was derived from both the firm's website and online

media. Throughout this process we applied abductive logic to connect the data through the literature which will be expanded upon in the subsequent analysis and discussion.

In the following sections we will review how we built our research question to fit an explorative and qualitative research design. We will then introduce the concept of abductive logic as this will be applied throughout the data collection and analysis processes. A reflection of qualitative data collection will then be presented. This will be followed by a look into how we chose our data sample, structured the interviews, and finally conducted the interviews. Lastly, we will discuss assumptions we had prior to the interviews; these assumptions will then be further reviewed in the following analysis chapter as the application of abductive logic is explained.

Explorative and Qualitative Approach

From the outset we aimed to present a broad research question in order to facilitate an explorative qualitative research design. Though both our topic and question were broad in nature we approached the topic through the lens of innovation as prescribed by our master's program (MSc in Social Science - Organisational Innovation and Entrepreneurship). A distinct characteristic of qualitative research is level of flexibility (Ragin, 1994). In fact, it is common to routinely make several adjustments to the focus and research design as the study progresses, in many cases until the end of the project itself (Kalof *et al*, 2008). Therefore, qualitative research is an aggregate process in which data collection, analysis, and interpretation run concurrently. This is reflected by Creswell (2007) as he states, "our questions change during the process of research to reflect an increased understanding of the problem". Although we did not refine the question throughout the process of data collection the flexible nature of qualitative research collection was applied in other areas. The research question itself remained broad and though our data sample was small the variation in the type of firm provided data derived from different perspectives in various industries. Together these factors enabled an explorative dive into how the use of platforms affects firm strategy. Like qualitative research, the exploratory approach is also characterised by its flexibility in looking for data as well as open-mindedness about where to find it. As a result, the

outcome of these procedures and main goal of exploratory research is the construction of inductively adopted generalisations concerning the group, process, activity, or situation under study (Stebbins, 2001). Thus, the goal of this thesis is to examine through different industries and perspectives if and how platforms affect a firm's strategy.

Exploratory research is conducted for three main reasons – analysing a problem situation, evaluating alternatives, and discovering new ideas (Sreejesh *et al*, 2014). It aims to uncover new insights within the topic of research and to add clarity to unclear situations. Therefore, it serves as a basis for further research rather than to develop definite evidence (Palić *et al*, 2015). One way explanation building can be accomplished is through the use of interviews. Conducting interviews, a form of exploratory research design (Sreejesh *et al*, 2014) where the data results from verbal communication (Palić *et al*, 2015). Interviews were our main source of empirical data. The firms we interviewed were chosen to fit one of three categories approaching the phenomena of platforms from different perspectives (more detail will be given in “Choosing the Data Sample” section of this chapter). Furthermore, due to their decidedly specialised knowledge and experience we chose to conduct in-depth interviews whereby the interviewees held executive or senior level positions. Our semi-structured interview design rooted in open-ended questions allowed for flexibility and the application of probing techniques to encourage our interviewees to provide more detail to relevant responses. It also complimented our data pool as it is primarily used to interact with busy executives. Another aspect of our exploratory design was the use of secondary data to complement our interviews. Secondary data can help to identify, clarify, and redefine the research problem. The classification of secondary data in a category encompasses books, periodicals, databases, publications, and media sources. Within a category there are also special collections made up of diverse material such as company publications and research papers (Sreejesh *et al*, 2014). These sources contained much needed and useful information which served as rich sources of secondary data. Together the criteria of choice of firm, semi-structured and open-ended interview design, position of interviewee, and use of secondary data represent the criteria making our process a successful explorative study.

As with any research design there are critiques and limitations of our explorative qualitative approach that need to be acknowledged. A key strength of the exploratory method can also be seen as one of its most common critiques – the use of qualitative data. When compared to quantitative research methods, qualitative interviews cannot study a large and or random sample of people because of the large amount of time and effort required as well as limitation of access (Qu and Dumay, 2011). Findings can also not be extended to a wider population with the same level of certainty as quantitative analysis due to findings not being tested to discover whether they are due to chance or are statistically significant (Atieno, 2009). Despite the benefits to be gained from qualitative interviews there is a risk of simplifying and or idealising the interview situation based on the assumption that interviewees are competent and moral truth tellers (Qu and Dumay, 2011). Alvesson (2003) suggests that interviewees produce the data needed to reveal their experiences, feelings, values, or facts of the organisation they are representing. When looking at semi-structured interviews specifically even the flexibility regarding the choice of words of the interviewer may contribute to bias, leading to different responses from different respondents (Srejesh *et al*, 2014).

Abductive Logic Applied

When conducting qualitative research, it is crucial to consider the relation between theory and data as well as between data collection and analysis. The iterative approach incorporates an interplay between data collection and analysis which can be discussed in terms of deduction, induction, and abduction (Kennedy, 2018). For our research we chose to apply abductive logic which broadly focuses on the relationship between theorisation and observations (Bryant and Charmaz, 2019). More specifically it goes beyond the data and pre-existing theoretical knowledge by modifying, elaboration upon, even rejection theory if needed, or putting old ideas together in new ways to examine, understand, and explain the data. To apply this logic researchers are constantly moving between data and theories to make comparisons and interpretations in searching for patterns and the best possible explanations (Kennedy, 2018). A common critique of this approach is that simply “surmising that something “may be so” is not the same as demonstrating that it is so (or is likely to be so)” (Lipscomb 2012,). It cannot be claimed

that the data collected unequivocally supports a particular theory or fully warrants a claim that is true because there are a potentially infinite number of other theories that are also compatible with the same body of evidence (Phillips *et al*, 2000).

Another logic that can be applied to qualitative research is deduction which begins with a specific theory or rules and examines how the data supports the rule (Reichertz, 2007). Thus, data is analysed in accordance with an existing theoretical framework. The advantage of this approach is that deducing from theory helps a researcher to focus on nuances in the data that may have otherwise been overlooked. This, however, can also be a hindrance as a researcher may only focus on parts of the data suggested by the theory and thus overlook other aspects of data that fall outside the scope of the theory (Kennedy, 2018). In short, they run the risk of over interpreting some aspects of the data while at the same time overlooking others.

The third lens for examining qualitative research is induction whereby researchers employ a series of empirical cases to identify a pattern from which they can make a general statement. In this context the empirical cases are always considered as interpreted data not raw data. This leads to a main criticism of induction in that the assumptions supporting 'pure' induction mean the researcher can collect and analyse theory-free data without prior theoretical knowledge. Therefore, induction consists of inferring categories or conclusions based on data (Thornberg and Charmaz, 2014). However, (Kelle, 1995) notes, researchers will always bring with them their own lenses and conceptual networks.

The abductive, deductive, and inductive approaches all have merit when conducting qualitative research. For our purposes however, the abductive approach was the better fit as we did not set out to commit to a specific theory (deductive) or build on case studies (inductive). Abduction is arguably also best suited to the exploratory research design. Chung Ho (1994) proposed the exploratory design functions as a model builder for confirmatory data analysis with abduction playing the role of explorer of viable paths for further inquiry. In other words, the abduction produces a plausible explanation of the data that accounts for surprises in data collection and analysis (Kennedy, 2018) and sifts through observations based on their relation to existing theory (Bryant and Charmaz, 2019). Therefore, an abductive approach is fitting as there

is some related literature, but we cannot yet provide an adequate conceptualisation of the problem to facilitate hypothesis building. Furthermore, with our diverse sample we wanted to create an environment to allow for learning in-between interviews. Finally adopting abductive logic, we continually connected the data through literature and were able to iterate between our empirical findings and initial theory which will be further explained in the subsequent analysis chapter.

Qualitative Data Collection

The attractiveness of qualitative research stems from its flexibility and ability to adapt. Unlike quantitative research, qualitative research is not data centric enabling researchers to generate richer data and make observations. There are a variety of different ways to conduct qualitative research. Sreejesh *et al* (2014) have subdivided qualitative research methods into three different classifications – depth interviews, focus groups, and projective techniques. (see Appendix C). For our purposes we went the direction of depth interviews which can be further broken down into unstructured interviews, semi-structured interviews, or standardised interviews. The interview type we chose to incorporate was the semi-structured interview which enables a level of structure by limiting the topics that are essential to the research, while still allowing for sufficient flexibility. We also applied probing techniques as they are also helpful to extract additional details from respondents (Sreejesh *et al*, 2014).

Choosing the Data Sample

For exploratory purposes, the mixed and varied sample method was made up of firms that fell into one of three categories – a platform-based firm, an established firm using platforms, and a digital consultancy connecting established firms and platforms. These firms all approached the phenomena of platforms from very different angles which further diversified the observations and insights available in the data and allowed for interesting similarities and contrasts.

Using our combined networks rooted in both our master's program and respective professional experiences we began to search for a broad set of firms that would provide a holistic view and sufficient data for our research. In the initial stages of our research we were able to discuss our research field and goals with individuals within our respective networks. From there interviewees were referred to us from those initial discussions. Gaest.com (acquired by Airbnb) was the only exception as we were able to set up an interview after visiting the company's headquarters in Aarhus during a student organised study trip for our master's program. Initially we had planned on traveling and arranging in person interviews however due to the global pandemic all of our interviews were restricted to a virtual setting. Furthermore, this also had implications on the number of firms we were able to arrange interviews with, initially we had hoped to interview at least three firms per category. However, businesses (especially senior level employees within those businesses) during this time were mainly focused on how to adapt to the crisis, taking away from time available to give thesis interviews.

We have selected firms involved with platforms in three different capacities. Categorising firms into these three categories we believed would give us a more holistic and bigger picture view of platforms in today's business landscape. Digital platforms are becoming big industry players that are challenging established corporations and traditional ways of doing business. We felt that interviewing a platform-based business would give us an interesting perspective and in-depth view of platform strategy, challenges, and ecosystems. We also chose to interview established corporations using platforms. From this we wanted to investigate the capacity in which platforms are used, the importance of platforms, and how the use of platforms has impacted their overall business strategy as this is the main purpose of our research. Thus, interviewing a platform-based business and established corporations would give us an inside-out and outside-in view of that relationship. We would have liked to include at least one more platform-based and established firm using a platform to our data sample however, due to the previously mentioned circumstances this was not possible. Finally, we chose to round out the type of firm interviewed to include digital consultancy firms. These companies advise and foster relationships between established firms and platforms as a

way to nurture innovation and therefore provide a unique understanding of both of the aforementioned types of firms we chose to interview. Digital consultancies also have expertise that spans across different industries due to their varied client base which will inform their perspective in regard to our research question.

Once we had established the types of companies to focus on, we shifted our attention to the type of individuals we would interview. Members of a business with senior level positions possess a more holistic overview and greater understanding of their respective business's goals. These key managers therefore are able to provide higher-level insights of the impact that platforms have on their firm's overall strategy as well as how the use of platforms affect business in general. Additionally, interviewing founders or people in executive positions at the firm added a level of richness and quality to the data that helped to offset the smaller sample size.

Interviews for Qualitative Data Collection

Alvesson (2003) defines qualitative interviews as, "relatively loosely structured and open to what the interviewee feels is relevant and important to talk about, given the interest of the research project". Thus, this explorative qualitative study uses interviews as a conversational two-way communication tool based on semi-structured interviews. Semi-structured interviews consist of prepared questioning guided by identified themes in a consistent and systematic manner accompanied by probes designed to elicit more elaborate responses (Qu and Dumay, 2011). This type of interview is further characterised by development and use of an 'interview guide' made up of questions and topics to be covered usually in a particular order. Though the interviewer follows the guide they are able to adapt to topical trajectories in conversation in which they then stray from the guide when appropriate (Cohen and Crabtree, 2006).

Prior to each interview, the interviewee was provided with a one-pager outlining the focus area of our thesis and what we aimed to accomplish. The one-pager also identified some of our key themes of our research including pipeline strategy versus platform strategy, internal versus external platform use, and network effects. In addition to the one-pager they were also sent a list of six to thirteen questions (dependent on the type

of firm that would be covered in the interview). After our second interview we found that there was a certain level of uncertainty concerning the term platform. To add a layer of clarity to this grey area we created a description of what was meant by the term platform and included it in all subsequent questionnaires sent to interviewees. The one-pager for companies and some of the base questions can be seen in Appendix D and Appendix E.

Semi-Structured Interview Process

An underlying trait of the semi-structured interview is the assumption that the questions must be comprehensible to the interviewee while, at the same time, the interviewer must respond sensitively to the differences in the way the interviewees understand the world (Qu and Dumay, 2011). Before each interview we conducted a deep dive into the firm as well as the interviewee based primarily on the information available on their website and online media. We then reviewed the questions sent in our general questionnaire and reformatted the questions based on both the type of firm we would be interviewing and background information we were able to find. Below are sample scenarios how we tailored our 'interview guide' to the specific type of firm being interviewed.

Scenario 1 – Interview with a platform-based firm

We wanted to include an interview with a platform-based company in our data set to increase our understanding of operational differences compared to a more traditional firm with a pipeline business strategy. We already possessed a good amount of background knowledge of Gaest.com's and their integration into AirBnb as we were able to spend some time at their headquarters in Aarhus during a study trip for our master's program. As a result, we did not need to conduct a lot of research into the company or our interviewee. We did, however, want to hone in on strategy and practices specific to a platform business. To do this we asked questions like, "What are some challenges with your strategy that come with focusing on platforms as a business model?" and "Does having a platform strategy hinder you from creating innovative ecosystems?". We also

followed up questions like these questions with probes to illicit more in-depth responses and further explanations.

Scenario 2 – Interview with an established firm using platforms

The overarching aim of our thesis is to understand how platforms affect a company's strategy. In order to do so we felt it was important to include an 'inside out' perspective from a firm that uses platforms. In talking to these firms, we first wanted to ask questions in order to establish whether or not their company followed a traditional pipeline strategy and what type of innovation model(s) they used. By digging into these points, we wanted to gain insight into how the company operates and how they look to evolve. Another set of questions used in this scenario aimed to figure out if they had a platform specific strategy and how platforms were being used. Some firms may use platforms as sources of external innovation or to streamline internal processes. Therefore, the capacity in which a platform is being used may affect the firm's position and overarching platform strategy.

Scenario 3 – Interview with a digital consultancy

Digital consultancy firms have a unique grasp of the impact and implications of how platforms impact business. They also grasp the challenges that platforms have in building up their business and proving out their value to established firms. In order to assess their perspective on this relationship we began these interviews by asking, "What are your key responsibilities as a platform facilitator?". We then further dug into this relationship by investigating how they enhanced the engagement of their clients. These firms also understand how established firms benefit when incorporating platforms into their strategy as well as best practices for implementing the use of platforms, especially when it comes to innovation. Therefore, we asked questions to examine whether or not their clients typically already had a platform strategy and how were their clients using platforms.

Our interview guide served to ensure the same thematic procedure was applied during all interviews. However, since we took a semi-structured approach with a basis in human conversation, we made a conscious effort to modify the type, pace, and ordering

of the questions to evoke rich responses that would make a meaningful contribution to the data set. This approach allowed our interviewees to provide responses on their own terms and in the way, they think and utilise language (Qu and Dumay, 2011). As outlined in this section our questions and overall interview process informed our data collection as they were guided by the organic development of the conversation and evolved overtime, as is the norm within the exploratory process.

Conducting Interviews

The research interview is one of the most important forms of qualitative data collection methods and provides a useful way for researchers to learn about the world of others (Qu and Dumay, 2011). Furthermore, Kvale and Brinkmann (2009) argue that the semi-structured interview is often the most effective and convenient means of gathering information. We therefore chose to base our qualitative research design on semi-structured interviews. Within these interviews we asked open-ended questions which sometimes led to straying away from the 'interview guide' but still provided the opportunity for identifying new ways of seeing and understanding our research question (Cohen and Crabtree, 2006).

During our interviews one of us was designated as the 'main' interviewer, steering the conversation, while the other took a step back to observe and take notes. This set up ensured that we would still be able to develop a rapport and dialogue with the interviewee while collecting data we could immediately reflect on following the interview. We did however acknowledge that semi-structured and open-ended design of the interview meant that discussion may diverge from the 'interview guide'. Therefore, at the beginning of each interview we asked for our interviewees consent to record our interviews so that we would be able to later transcribe the recordings for a more in-depth analysis.

An important complement of qualitative interviews are observations. In person interviews allow an interviewer to observe their subjects body language, mood, and a number of other cues that provide a level of data that cannot be found on any website or

form of online media. As previously mentioned, due to restrictions in place on travel and recommended social distancing we were not able to conduct any in person interviews. As a result, the observational element of our interviews was restricted to what we could pick up in the tonality of the dialogue and interviewees individual responses. After concluding an interview, we discussed these elements to try and derive some insights regarding the interviewee's mood or level of excitement. In the following analysis we were also able to refer back to our recordings of interviews to try and parse out these details.

A principal technique used in semi-structured interviews is initiating probes which provide the interviewer with the means to draw out a more complete narrative from the interviewee and drill down on a particular topic (Qu and Dumay, 2011). Keeping this in mind we probed our interviewees and dug in deeper on certain questions where we felt the subject had extensive knowledge or could contribute a richer response. We also made sure to leave time at the end of the interviews for any additional questions that may have been inspired by the conversation thus far.

Assumptions Prior to the Interviews

Based on our past experiences and early stages of topic investigation and literature we developed several assumptions. Our first assumption was surrounding a firm's strategy. We were primarily concerned in uncovering to what extent platforms impact a have on a business's strategy and how they have modified strategy to adapt. In today's landscape platforms are commonly viewed as a disruptive force with the ability to not only revolutionise entire industries but to create their own. How Uber has transformed the taxi industry is a prime example. That is not to say however, that there are still pure pipeline businesses that are highly competitive. But it seems more and more that when platforms enter the same marketplace the platform virtually always wins. This phenomenon has left traditional pipeline giants like Walmart, Nike, and John Deere trying to figure out how to incorporate platforms into their models (Van Alstyne *et al*, 2016).

Building off our first assumption we also presumed that businesses would be diligently working to incorporate platforms as a key component of their strategy. There is a great deal of literature focused on the platform phenomenon as well as the disruptive nature and impact that platforms can have on a marketplace. For instance, some of the most valued and globally recognisable companies like Alibaba, Amazon, Facebook, and Google are all platform businesses with surprisingly short history's (Constantinides *et al*, 2018). Furthermore, the literature is overflowing with work focusing on multi-sided platform markets with the cases of Uber, Facebook, Google, Etsy and more consistently making an appearance. Due to this phenomenon we assumed that firms would be scrambling to adapt and create a platform strategy in response to these revolutionary companies that have changed industry and marketplace landscapes.

In the following analysis we will apply abductive logic on both a micro and macro scale by first examining each individual interview and then looking at the trends, differences, and commonalities in a holistic overview. Through the lens of abductive logic, we will review how our assumptions evolved and were challenged as a result of analysing our data collection.

Results and Analysis

Analysis Overview

We will begin our analysis by independently examining each interview in a chronological fashion. Appendix F categorises the interviews into one of the three categories previously mentioned: 1) a platform-based firm, 2) an established firm using platforms, or 3) a digital consultancy. The table also provides an overview and background of both the company and interviewee. Due to the semi-structured and open-ended interview design that was previously described in the Methodology Chapter, the analyses are structured by topic rather than by question. For us as interviewers it was not uncommon to jump between questions or introduce an entirely new question during the course of the interview. There were also times where interviewees gave answers that related more to a previous question or that went

somewhat off topic. Therefore, in order to conduct a well-organised analysis, we identified key topics or themes, some of which were discussed in the Literature Review Chapter, that were discussed during each interview and then further investigated each respective topic or theme.

Following the individual analyses, we reviewed the key topics or themes in order to uncover parallels across the collection of interviews. Appendix G provides an overview of the key topics or themes discovered in the individual interviews within the three categories of firms interviewed. From here we identified key insights and overarching themes that we had not previously considered in regard to their relation and impact on how a firm incorporates platforms into their strategy. Our analysis revealed that internal innovation, organisational change, and value are important themes that need to be reviewed. Expanding on our abductive logic approach we then discussed how our insights and these new themes relate to literature.

Individual Interview Analysis

Gaest (Airbnb)

Analysis Overview

This analysis will investigate the key topics or themes we found in the course of our interview with Anders Mogensen, CEO of Gaest (see Appendix F for company and interviewee background). These topics or themes will be examined as they related to the literature and Gaest (Airbnb). The overarching topics or themes covered will include the key responsibilities of Gaest as platform, challenges associated with having a platform-based strategy, enriching the experience for hosts and users, interaction or use by Gaest (Airbnb) of other platforms, and how a platform strategy impacts the creation of innovative ecosystems. Finally, we will conclude this analysis by reviewing the key takeaways and themes (see Appendix G for an overview of individual interview themes). The detailed interview overview can also be found in Appendix H1.

Key Responsibilities as a Platform

Being a multi-sided platform Gaest (Airbnb) has a responsibility to different sides of the market. As we can see this differs from the traditional firm centric perspective focused on one-way communication from the firm to the customer. Here co-creation allows for a user centric perspective with a two-way dialogue in which users engage in virtual environments. These virtual customer environments enhance the ability of firms to engage with users and tap into user knowledge through an ongoing dialogue (Sawhney *et al*, 2005). However, with the current global state of affairs due to the COVID-19 pandemic Mogensen raised an interesting point. Gaest (Airbnb) has effectively created a completely new segment within the hospitality and travel marketplace. Therefore, Mogensen proposed the question now being raised is what level (if any) of responsibility do platforms like Gaest (Airbnb) have to the members (both hosts and users) of this environment. This phenomenon thus becomes critical in the revolutionary platform era we currently live in, as suggested by Parker *et al* (2016), in which platforms both create and dominate markets across various sectors and are subsequently transforming people's lives. As a result, we suggest that platforms like Airbnb have become instrumental (either partially or wholly) to an individual's success. Continuing to use COVID-19 as a reference point Mogensen provided an example of someone in a major city, like Tokyo, whose sole source of income is renting out properties through Airbnb. With the virus effectively bringing tourism to a halt their livelihood is now in jeopardy. Since this host is not a direct employee of Airbnb do they have a responsibility to help the individual during this global crisis? If so, how should they support members of their community and what level of support should they offer? Though there is growing responsibility being taken by platforms, the answer to this question, however, is not black and white, we can see that there exists a substantial grey area that must be navigated.

Platform-Based Strategy Challenges

We believed that there would also be challenges for a firm regarding strategy that would result from having a platform-based business model. Up until now globally recognised platforms like Gaest (Airbnb), Uber, Bird and many more have existed in somewhat of a bubble of good times, success, and growth. However, as Mogensen

pointed out COVID-19 has now brought many platforms to a critical point and is challenging these business models. We can assume that more traditional businesses can draw on their own experience or other industry use cases to help them through times of crisis whereas these revolutionary platform concepts are being truly tested and confronted for the first time thus forcing platform businesses to re-evaluate their real identity. This brings to light the crucial need for a better understanding of platforms as the impact of platforms on innovation and competition has yet to be refined (Gawer and Cusumano, 2014).

Another way Mogensen views the strategic challenges unique to platforms is through a platform neutrality lens. Here we can see two opposing positions; platforms that do not interfere with what is happening on their platform versus those taking a more active role. Boudreau and Lakhani (2009) further break down the level of control into three types of platforms – integrator platforms, product platforms, and two-sided platforms (see Appendix I). They describe integrator platforms as keeping a high level of control as they incorporate outside innovation but ultimately sell the final product directly to the user. Product platforms are outlined as having less control because external innovators build “on top” of the existing platform and sell the resulting product to customers. Finally, two-sided platforms are described as having the least amount of control but the highest level of autonomy of external parties. Thus, external innovators and customers are able to transact directly with one another as long as they also affiliate with the platform's owner (Boudreau and Lakhani, 2009). Therefore, we can deduce that when building a platform, the level of control must be considered when developing a strategy as it will dictate the type of platform business model that is applied.

We can also make a distinction between platforms where the primary offering is the use of technology versus those that actively engage with users and build a community. According to Mogensen, once platforms take the step of investing in companies and creating access to other products or companies through their platform, they are moving more towards a traditional business model. Therefore, platforms only focused on selling their goods or services think more along the lines of traditional businesses in that they focus on customer value whereas platforms like Airbnb focus on ecosystem value (Van

Alstyne *et al*, 2016). In taking an even closer look we can see the emergence of differing characteristics that demonstrate the specific nature of platform business models and the differences from the more classic approach to value creation. In the classical perspective value is created in a linear manner whereas in the platform approach, platforms act as the value orchestration mechanism that organises and ensures value creation (Gatautis, 2017). To that end we can infer that a platform's strategy may shift over time if their business model begins to mirror a more traditional and linear approach.

Enhancing Experiences for Hosts and Users

There is a clear difference here we argue among multi-sided platforms that value the creation of community between buyers and sellers (in the case of Gaest/Airbnb, between hosts and users) versus those that do not. This can be seen when we examine the relationship between Booking.com and hotels compared to that of Airbnb and its hosts. Hotels strictly view Booking.com as a place they need to be if they want to be competitive, in that sense it has almost become an industry standard and a necessary part of doing business. Mogensen highlights that hosts using Airbnb on the other hand, view Airbnb as more of a friend with whom they have a collaborative relationship. Thus, we propose that this sense of community that Airbnb has created for its hosts is also mirrored on the side of the users and is a classic example of the network effects that are associated with multi-sided platforms. When network effects are at play there are increasing incentives for more hosts and users to join the platform and the ecosystem (Cusumano and Gawer, 2014). Therefore, we can see that indirect network effects play a more substantial role for companies like Gaest (Airbnb). The greater the number of platform users of Gaest (Airbnb) the larger the market and therefore the amount of hosts will rise too as the market shifts to a new equilibrium.

We also identified the creation of community as a vital and important role that is played by platforms as it facilitates continual feedback loops and unlocks new sources of value creation. Though we discussed with Mogensen how the creation of community enhances the engagement of users through the lens of a platform-based business, the concept is also important for more traditional businesses. A case discussed by Sawhney

et al (2005), Ducati Motor, is a prime example of one such traditional business that has recognised the value of community and integrated it into their overall strategy. Not long after creating a company website in early 2000, Ducati evolved the site to create a robust virtual customer community which reached 160,000 users by July 2004. Ducati considers their community of fans (term used for customer) a major organisational asset and tightly connects the community function with product development by involving fans on a systematic basis. This community has been built out with numerous digital platforms to support both a rich and broad customer engagement. One such digital platform is the “Tech Café”, a virtual environment in which fans can share their projects for customising motorcycles, provide suggestions to improve Ducati’s next generation products, as well as post their own mechanical and technical designs, with suggestions for innovations in aesthetic features and mechanical functions (Sawhney *et al*, 2005). Therefore, as seen with Airbnb and Ducati, we deem the community that is built through platforms as not only a valuable tool for value creation and co-creation but also for innovation.

Integration and or Use of Other Platforms

Gaest is not currently involved with any other platforms as the sole focus lies in working towards fully integrating into the Airbnb platform. However, as previously mentioned and as is evident by Mogensen’s involvement across various executive boards he is very invested in other platforms and marketplaces and enjoys sharing his knowledge on a regular basis. During our visit to the Gaest (Airbnb) office in Aarhus, Mogensen’s enthusiasm and passion was clearly visible as he fondly described his experiences that lead him to the current Gaest and Airbnb integration. We further observed that he embodies many of the characteristics outlined in the literature of effective platform leaders. For instance, compared to traditional businesses, platform leaders focus on interaction and the exchange of value between both sides of the market (Van Alstyne *et al*, 2016). Another important quality lies in the need to continue evolving platforms, ecosystems, and associated business models to stay competitive as challengers emerge and markets or technology changes (Cusumano and Gawer, 2013). This notion is encapsulated by the recent acquisition of Gaest by Airbnb, as Mogensen stated, “We’re

thrilled to join one of the world's most innovative companies and become an integral part of their mission to make it easier for professionals to feel a sense of belonging at work" (Gaest.com Joins the Airbnb Family, 2019).

Platform Strategy's Impact on Creating Innovative Ecosystems

At Gaest (Airbnb) Mogensen believes they have an open innovation ecosystem because they are actively looking for hosts to market themselves and their space, and then for others to in turn use that space. This open innovation strategy provides them with an opportunity to gather insights in a way not commonly employed in a traditional corporate structure. For example, if Gaest (Airbnb) was interested in expanding their market to South Korea they would send either a dedicated individual or team to investigate what is happening in that marketplace to try and understand the mindset of the people living there, what details are important to them, and how they think in regard to designing their environments which produces an amazing pool of knowledge. Christensen (2006) predicts that in an open innovation world, deep technological competencies will play less of a role in a firm's success. Therefore, we can position Gaest (Airbnb) as a prime example of this notion as their aforementioned commitment to understanding each market they enter and making connections with locals is what sets them apart rather than a revolutionary technological competency. We found that another aspect of their innovative ecosystem is community. Open innovation communities encapsulate an ongoing voluntary association of individuals (users) or organisations (hosts) that are organised or leveraged by for profit actors. This is different from networks in that open innovation communities involve membership, identity, and group loyalty (West and Bogers, 2013). As we previously discussed fostering a community environment with mutually beneficial relationships to both sides of the market is of the utmost importance to Gaest (Airbnb) and it a key aspect of their strategy. Overall Mogensen feels that platform strategies offer a substantial opportunity for innovation and innovation ecosystems. We found that this sentiment is mirrored across various works of literature. For instance, Täuscher and Laudien (2017) propose that by integrating knowledge on platforms and platform-based ecosystems a better

understanding of how marketplaces create, deliver, and capture value and compete among each other can be reached.

Key Takeaways

We wanted to include a strictly platform-based firm in our data set as digital platforms continue to emerge as industry players challenging established corporations and traditional ways of doing business. Though we would have liked to have had more interviews to bolster this category, we felt that the data that resulted from this particular interview was both rich and of extremely high quality due to our interviewee's current position at Gaest (Airbnb) as well as his past experiences and industry knowledge. From our analysis of this interview we saw a commonality in the themes discussed in literature as well by Mogensen. Those themes included the presence and impact of network effects, ecosystems, and community in multi-sided platforms. One potential theme we had not previously considered in our initial research assumptions however value creation and co-creation. As we progressed with our interviews and review of literature, we were curious to see how the role and level of importance that would be placed upon value.

Etventure

Analysis Overview

This section will focus on the interview with Christian Böttcher, the Competence Center Lead for Platforms and Ecosystems, who works at Etventure, a digital management consultancy. A more detailed overview of the interviewee and company background can be seen in Appendix F. Some relevant topics that stood out to us during the interview are: key responsibilities as digital consultants, types of innovation models, network engagement, platform as a strategy and from internal to external. These overall key takeaways can also be seen in the overall themes developed for each interview in Appendix G. Furthermore, the interview itself can be found in Appendix H2.

Key Responsibilities as a Digital Consultants

Most of etventure's clients are traditional pipeline companies that are in highly competitive fields and are therefore trying to explore new ways in which they can develop their business. As the topic of embedding platforms and digital ecosystems is quite new for most companies that etventure consults, they have to first identify what type of mindset the company has in order to cater their customers more effectively. They have identified four mindsets in which they classify their clients based on a client's knowledge, understanding, and readiness to use or integrate platforms. Mindset one applies to companies with a very basic knowledge of platforms whereas mindset four applies to companies who already possess a very platform driven or digital mindset. Developing these mindset classifications is in line with Van Alostyne *et al* (2016) as they describe one of the key ways to develop platforms on top of your existing business is to develop a new mindset to design and govern platforms. Once the mindset is recognised, they have to identify how platforms can be used to strengthen their strategy. As most of their clients are in the mindset one or two, topics such as open innovation and coopetition are not very common and interaction between corporate partners is limited. However, as you move to more advanced mindsets, collaboration becomes more common, but this all depends on the dynamics of an industry.

Clients often come to etventure with the intention of building their own platform however, this does not always make sense. Böttcher stresses the importance of scoping the industry for existing platforms and their benefits to see whether building a new one or joining one adds more value. Cusumano (2010) highlights that with existing platform plays in an industry by a focal firm, aim to create economic incentives for firms to join their platform and become a part of their ecosystem. This allows everyone in the ecosystem access to the products and services that complementors have to offer. This is in line with etventure's approach as they often advise clients to integrate a platform that is already out there and play the platform driven ecosystem play. Each platform has a different business model and their own dynamic which furthermore stresses the point of understanding the environment one is trying to encapsulate with a platform.

Failure is an important topic of discussion between etventure and their clients. As failure is not something organisations want to indulge, they must address what success

means and how failures can be viewed as a success. Platforms are a costly endeavour, more so that tradition inside innovation programs, therefore defining what success means is essential. Part of that is identifying the correct metrics to evaluate which are very different from standard metrics a business uses in projects. Some of these metrics include interaction failure, engagement, match quality, etc (Van Alostyne *et al*, 2016). and while these do not represent metrics that are correspondent to financial gain, they are metrics that will help capture value. This is furthermore supported by West and Bogers (2013), who highlight that standard metrics are insignificant to quantify value creation. Platforms being a costly endeavor, the ability to identify cost to value is extremely difficult. This is highlighted by Simpson *et al* (2006) as they identify that the value of a platform can be measured, but these metrics are insufficient to capture financial success. The difficulty of defining success and dealing with failure are apparent however the need to accept failure and pursue platforms are seen by businesses and consultants as vital in order to assure sustainability for the future.

Types of Innovation Models

In order for etventure to identify the correct innovation model for their client, they have to scope out their knowledge, environment and what they mean by wanting to adopt platforms. Often clients come with close to no understanding of what a platform is but see them as a system that does and solves everything for them. A theme identified is that the term platform has various definitions and forms. A common mistake here is to think of platforms solely as a digital interface. Therefore, the aforementioned scoping workshops support etventure in guiding the client in picking the correct innovation model. Also, most companies don't come in with the term ecosystems during these workshops which shows their mindset is still rudimentary. Some questions to ask here are:

- What Ecosystems am I already involved in?
- How is the ecosystem evolving?
- What is my role in the ecosystem?

Cennamo (2016) stresses this point as “Platform value and ecosystem structure coevolve via complex feedback effects that aren’t yet fully understood”. This shows on the one hand, the lack of understanding most companies have in regard to ecosystems, and on the other hand shows the lack of awareness in regard to their involvement and value capture. This can be tied to their lack of openness as in most cases, their clients go for closed innovation approaches. This is a major issue in most B2B industries as they have not yet understood the mindset shift from internalisation of knowledge to externalisation through an open innovation approach or multi-sided businesses. While most companies have a good understanding of what their capabilities are, they have for building physical/non-physical products, they haven’t grasped what value these capabilities offer them in an open innovation model. Especially if companies want to drive innovation through platforms, Gawer (2014) suggests that this cannot be understood in isolation and that the interaction within a platform shapes its evolution.

Network Engagement

Engagement is a difficulty that etventure has with clients that are mindset one or two. Their clients often have a distorted view of the relationships with their clients as they claim to be able to set up numerous interviews for etventure to conduct but after a considerable amount of time, often a couple of months, they only manage to come up with a handful. This shows that the engagement with clients is not seen as a valuable resource by the focal firm and is a key problem when wanting to adopt platform thinking. On the one hand quality and quantity of a network is a key asset in platforms, on the other hand a platform cannot create value without interaction and engagement of the participants. This is also highlighted in current literature by Van Alostyne *et al* (2016), as the network of producers and consumers are chief assets as well as their contributions, and Ruggieri *et al* (2018), a community of users/producers of services and their participation.

Platforms as a Strategy

Clients come to etventure as they want to understand what platforms are and what they can mean for their business. When adopting their strategy, etventure suggests two approaches. One is to make an organisational shift towards platforms directly, the other is a two-pronged approach. With a two-pronged approach, they continue their core business but add either a network approach or a platform business and build this up from the core. With these approaches come two further decisions, whether to build or buy a platform. We identify implications with both approaches. With the buy approach, a company runs the risk of the employees and managers not integrating the platform thinking into their daily activities which results in either a misuse of the platform or not using it at all. The essential problem is that the platform is forced upon pipeline thinking people which according to Böttcher fails most of the time. When considering a build approach, this can be difficult if the aforementioned network information and engagement is not present. It is also a very long process to adopt platform thinking. From a level of understanding, upper management is usually able to understand platforms quickly, however the middle management often has difficulties adopting this approach as they try to apply this to their pipeline driven mindset which results in taking a longer time. They also don't have the overview or the exploratory reach that upper management has when understanding pipelines. With our research question in mind, we questioned Böttcher about merging a company's general strategy with a platform strategy. As one of our assumptions is that companies need to involve platforms in their overall strategy, we wanted to know if and at what point he had witnessed this. He answered by saying "most of the companies are not as advanced however, at a later stage that's totally true" (Böttcher, 2020). This led us to change our initial assumption as it seemed that only companies that have multi-sided businesses really focus their strategies around platforms. On the other hand companies that are in the initial stages of identifying how platforms can be applied to their businesses, combining their strategy and platforms is a big mistake.

[From Internal to External](#)

etventure is a company that tries to push companies to an open innovation approach so that external developers can build on top of their technologies. Known innovation

platforms such as Apple iOS and Google Android lead the way for building innovative ecosystems for developers (Hsieh, 2019), but often this is a difficult approach for traditional pipeline companies as they focus more on commercial transactional platforms. While in our opinion having a commercial transactional platform is a good first step, the following step is to focus more on capturing external knowledge and capabilities that will allow a company to move towards building an innovation platform. Extending commercial transactions and enhancing interaction can help to facilitate this next phase. Taking this a step further, the topic of governance arises as a company must decide how to properly manage the platform. Part of this involves how much control or autonomy the focal firm wants to allow as this will dictate the setup and dynamic of the platform (Boudreau and Lakhani, 2009). More aspects involve how much of their technology to open up to external developers to spur innovation and how long to grant these developers the benefits from sales that come from these innovations before the innovation is absorbed into the technologies core (Parker *et al*, 2016).

Deloitte Digital

Analysis Overview

In this analysis we will examine more closely key topics or themes that were identified during our interview with Andrew Goldstein, Co-Founder and Managing Director of Deloitte Digital GmbH (see Appendix F for more company and interviewee background). These topics or themes include key responsibilities Deloitte Digital has as platform facilitators, a new way of thinking within firms that may lead to platform thinking and use, open innovation, and the conditions of internal innovation (see Appendix G for an overview of key themes). The analysis of the topics of themes will be investigated as they relate to Deloitte Digital and the literature. We will then end the analysis of this interview by reviewing the key takeaways and themes. The detailed interview overview can also be found in Appendix H3.

Key Responsibilities as Platform Facilitators

Regardless of the size of their client it is important for Deloitte Digital to convey to their client that generally speaking business has moved into an ecosystem way of thinking. A vital aspect of their role is thus to help their clients understand their respective roles in an ecosystem or on the platform and how to distinguish themselves from being a platform initiator versus platform member. This classification of the types of users of platforms has also been discussed in the literature. Ernst and Young (2016) identified four types of platform users as platform owners, key partners, peer producers, and peer consumers. However, for Deloitte Digital this presents itself in two broad challenges; governance and revenue models.

Many times, according to Goldstein, when building a platform there is no clear responsible party for getting it started which can result in a consortium or group of ecosystem players of which there is no leader. A main function as a result for Deloitte Digital to help clients with governance. However, we found that conflicting views of the level of ecosystem governance needed exist not only between the scenario described by Goldstein and the literature but also amongst the literature itself. (Van Alstyne *et al*, 2016) proposed that because platforms create value often times through interactions the emphasis shifts from dictating processes to persuading participations making ecosystem governance an essential skill. On the other hand, Jacobides *et al* (2018) suggest that ecosystems allow for some degree of coordination without relying on hierarchical governance due to their ability to use some standards of base requirements allowing complementors to make their own decisions while still allowing for complex interdependent product or service to be produced. Despite the variation in status given to platform-based ecosystem governance we did discover a commonality of cooperation being discussed as a key success factor. Goldstein noted that at Deloitte Digital they focus on assisting their clients to shift from a competition mindset to a combination of cooperation and competition, coopetition. To do this Goldstein stated, “depending on the platform that we’re working on and how it’s being built up, we’re often having to help them through the thinking of, I actually need to invite my competitors to be on the platform with me otherwise, it’s not really an open platform” (Goldstein, 2020). This notion of coopetition is a defining feature of platform-based ecosystems further

characterised by an agent's changing roles within the ecosystem and associated shifting patterns of collaboration and competition (Isanti and Levien, 2004).

Another hurdle, proposed by Goldstein, Deloitte Digital has to work through with their clients is setting up revenue models with the aim of making an ecosystem a feasible reality versus a “playground” that loses money. The type of revenue model applied is highly dependent on the purpose of a platform. One option may be to charge membership fees. An example provided by Goldstein was the InsurTech Hub in Munich is a platform comprised of 20+ insurance and cross industry partners coming together (Walter, 2020). Within the platform’s accelerator the companies work with start ups, create connections, and go through various proof of concept phases with the start ups. For this particular platform structure there is a possibility to collect membership fees from the insurance companies and cost industry partners. Apple provides more clearly defined example of a revenue model with their App Store. Goldstein explained, developers are free to create and share their apps via the App Store however, Apple takes 30% of the revenue as there is a distinct product being offered. Therefore, we can assume that because a platform's purpose is a critical factor of the topic of revenue models, figuring out how to cover platform costs is a topic clouded in uncertainty for many firms. We believe this is where the value of a consultancy like Deloitte Digital comes into play as they can apply their industry insight to help transform their clients' businesses. However, we found that this is an area that is also somewhat unfocused literature as well as some of our main authors (Van Alostyene *et al*, 2016; Jacobides *et al*, 2018). Academics discuss revenue models on the basis of theoretical and conceptual frameworks in various scenarios. The resulting availability of a multitude of different platform-based revenue models can make it hard for firms to navigate if they are trying to apply a framework in practice.

New Way of Thinking Within Firms

Goldstein believes that firms are beginning to understand that they may be better off to disrupt themselves rather than waiting for the market to disrupt them, though that does not mean they will give up on traditional pipeline businesses entirely. We can therefore presume that this new way of thinking within firms will in turn lead to an openness to

try new approaches. Here Goldstein again noted, “I think that it's an addition to what people are already doing rather than saying, okay, we're just going to completely change our business model and become a platform business. I think that's not really what's happening. I think it happens step by step over time” (Goldstein, 2020). This realisation by firms, however, is a step in the right direction as platform and innovative thinking require new styles of leadership as well as new business disruption strategies (Ruggieri *et al*, 2018). Once firms reach a point of openness they can then begin to apply that stream of thought towards platforms and in what capacity they can be applied within the firm. As pointed out by Goldstein, there are currently vast amounts of platforms already in existence so there are many opportunities for companies to get involved with different platforms across different ecosystems. Thus, we can surmise that for many companies joining these established platforms and ecosystems, whether it be a university or open innovation platform, is the first step towards a more innovative way of thinking and operating.

Open Innovation

Deloitte Digital are big proponents of open innovation which we know recognises that great business ideas can come from sources both inside and outside of traditional company borders. At Deloitte Digital they use various corporate venture initiatives to leverage open innovation methods to enable the creation and development of corporate start ups. Some of these models include innovation labs that support rapid prototyping, dedicated corporate venture building units, accelerators and incubators for growing pre-seed and early-stage internal and external start ups, institutional partnerships within the start up ecosystem, services from start ups, and finally merger and acquisition (M&A) divisions that acquire entire start up companies (Sanders *et al*, 2020). In Appendix B we classified some of these innovation models as platforms themselves that firms can use as sources of innovation or to engage with start ups on an either an external or internal level. Goldstein runs the business building unit, the company builder unit of Deloitte Digital, where their goal is to aid clients in coming up with new business ideas. More specifically, Goldstein explained, “Sometimes they can be platforms, sometimes they can just be standalone companies and we do what we call

concept build, operate, transfer. So we help them to outline the idea of the new business or the new platform” (Goldstein, 2020). The projects run by Deloitte Digital generally follow lean start up and business planning canvas models. Finally, they intend to help by showing clients that a big source of ideas can and should be sourced from their own employees. The tendency for firms to focus more on external sources of innovation over internal ideas from their employees is a sentiment that is echoed in the level of academic research between the two functions. External sources of innovation seem to dominate the conversation in literature focusing on open innovation research. Many researchers have examined the general role of external sources of innovation as a way of adding to or complementing a firm's internal knowledge base (West and Bogers, 2013). Chesbrough (2006) however argues that in regard to open innovation, firms can and should include both external and internal ideas when they look to advance their technology.

As we just reviewed, there is a growing expectation to innovate which has brought innovation from a closed process, traditionally sourced from R&D departments to more open methods (Sanders *et al*, 2012). Traditionally corporations used functional management structures with their own R&D, manufactures, as well as their own supply chain management organisations. Within this structure minimal information, technology or business lessons are shared among the various business units (Simpson *et al*, 2006). Open innovation complements traditional R&D in its collaborative nature and opens up the innovation pipeline to ideas sourced both internally and externally (Sanders *et al*, 2012). As Goldstein pointed out, “it's not enough today to just say, I'm just going to have a corporate venture capital fund and I'm going to invest money and start ups in the hope that we get a good financial return” (Goldstein, 2020). Deloitte Digital, therefore, advises clients to draw from a diverse landscape of programs or platforms for innovation. At the same time, Goldstein believes, companies need to be aware of the different silos this may create and should have a structure in place that allows for transparency across the different platforms in order to capitalise on synergies. We can then look at the example of a common integration platform that could be used across all business units to keep everyone up to date. Cross functional teams are another potential solution to provide cross divisional transparency. Globally recognised

firms IBM, Playtex, Intel, and DuPont have all aligned their respective organisations to maximise the benefits of cross-organisational information sharing and cross functional teams (Simpson *et al*, 2006).

Internal Innovation Conditions

At Deloitte Digital, Goldstein leads innovation and venture where he deals primarily with firms ready to look at new things and eager to innovate. Innovation hubs or competitions are just one of the popular platforms that various companies are testing. Though firms may be aligned with the idea of using platforms to facilitate innovation, we believe that successful implementation can be tricky as they differ from traditional corporate structures. This is an area where we, therefore, find digital consultancies like Deloitte Digital to be important. Digital consultancies can offer assistance to clients with the establishment of a governance unit, measurements for efficiency, criteria for success, a funding strategy as well as aiming to help them deal with topics like failure, secondment¹, and incentives. Goldstein suggested that many people have a naïve view of innovation assuming that it should be a free and open space where people can be creative and do whatever they want. He went on to say that while the notion of openness and creativity are important in reality when looking at places where innovation is very successful you find that they are extremely well structured.

In internal innovation ring fencing involves moving a new project in a separate space away from the day to day operations of the firm. This popular practice is done to protect projects or platforms in their early stages from the corporate DNA. As pointed out by Goldstein, the fence is not dropped until the unit is strong enough to stand on its own and there is a strategy in place for it to be integrated into the firm or spun out from the firm. Change in an organisation is never easy furthermore, it is not a process that

¹ Secondment is defined by the Cambridge Dictionary as, “a period of time when an employee is sent to work somewhere else, to increase the number of workers, to replace other workers, or to exchange experience or skills” (SECONDMENT, 2020). Goldstein has adapted this definition to apply to a situation in which an employee has come up with an idea which the firm has given them approval to pursue. In addition to the amount of money they are given by their firm they are also given a certain amount of time. Therefore, instead of spending 100% of their time on their core responsibilities they can split their time 60% - 40% for example, between their core position and working on their new project.

happens overnight. Any time a new innovation project or platform is being introduced there are going to be naysayers and people who do not want change. Because of this we can infer that past thinking is a big challenge for almost all firms in regard to internal innovation. Furthermore, change can also be painful, and management may have to make the tough decision to let people go who do not want or are not willing to embrace change.

In our interviewee with Goldstein we also discussed the implications that structure and past thinking have on internal innovation. Thus, another key topic we were interested in were strategic implications concerning employees specifically; what are the skill sets required by employees, do companies educate their employees, or is there a change in what they look for in new employees? Education, especially in the digital landscape is a big area of focus for many firms according to Goldstein. Deloitte for example hosts a Digital Fluency Academy with the hope of providing people with a better understanding and comprehension of digital. Building on our earlier point, change management and working with the concept of tribes (Logan *et al*, 2008) is also another trend Goldstein is starting to see among companies. This concept posits that the success of a company is not a function of the leader, but of its tribes. These tribes span departmental and organisational boundaries and vary in terms of their effectiveness, innovation, and nimbleness (Logan *et al*, 2008). Deloitte itself has adopted this concept with the implementation of a new operating model, breaking people with different skill sets and backgrounds into talent groups. Then after they have assessed a new client's needs they attempt to match them with the most suitable talent group. This is just one example of how firms can place their employees into a different type of organisation. However, we know that this is easier said than done. Per Goldstein, a key mistake that companies make is not organising their employees enough. For example, they may educate employees on agile or lean methods but then those lessons are not applied into day to day operations.

Key Takeaways

Our initial assumptions about a firm's platform strategy in regard to innovation focused more on external sources. This way of examining open innovation was further

reinforced by the literature as it places a heavy emphasis on external sources of innovation over internal. The abductive process is about discovering new ideas and explanations by finding surprising data (Kennedy, 2018). In our interview with Goldstein we were surprised to learn how much Deloitte Digital focused on internal platforms as sources of internal innovation thus, opening our eyes to how valuable internal platforms can be as sources of innovation. Deloitte Digital takes the approach of looking at the way the most popular and successful platforms (accelerators, incubators, anything else that matches the table) operate and asks the question why should it be any different for a firm to set up a similar platform internally? There are, however, many important factors that companies need to consider when establishing internal programs for innovation. They must create criteria for success, align on metrics that go beyond revenue, learn to accept failure, and establish an internal governance to monitor and manage projects resulting from the platform. In order to accomplish these things firms must shift from a manager mindset to a start up mindset as oftentimes a different culture is required for the successful use of innovation (West and Bogers, 2013). Firms must also consider incentives for employees to participate in platforms, how to deal with secondment, as well as changes that may need to be made on an employee or organisational level.

In addition to the varying viewpoints and level of importance given to internal and external sources of innovation, there were some other surprises and links that we discovered. Between the literature itself and the data collected from Goldstein there appeared to be differing views on the level of ecosystem governance. Goldstein talked about the importance of having a leader within an ecosystem whereas Jacobides *et al* (2018) believe that there does not need to be a reliance on hierarchical government. There was however no question that platform governance is an essential skill (Van Alstyne *et al*, 2016). We also found cooperation to be an agreed upon important factor in ecosystems dynamics both in literature and in the data.

Venture Spirit

Venture Spirit Analysis Overview

In this section, we will analyse some of the relevant themes we identified during our interview with Thomas Geerinck, the Managing Partner and CEO of Venture Spirit, an Information Technology and Service consultancy. The relevant topics we would like to highlight are challenges when implementing platforms, getting your company involved and assessing innovation: value versus risk (see Appendix G for an overview of identified themes). The analysis of these themes will also include relating them to recent literature. More information on the Interview partner at the company can be found in Appendix F. Furthermore, the detailed interview overview can also be found in Appendix H4.

Getting Your Company Involved

Convincing the focal firm of change and getting them involved in the process is a critical aspect of implementing platforms, especially when introducing new methods of ideation. Some known methods that aid in compelling employees towards a new path is to conduct a campaign. An effect of a campaign is its ability to spur creativity and help with the internal development of new ideas, cost reductions, general trivialities and more. Through effective communication and creating an environment that employees can enjoy a campaign can trigger intrinsic motivation. According to Geerinck, doing a campaign is an effective but known method and therefore the novelty wears off. This in return would mean that employees see this as work again which would result in lower participation rate, lower levels of engagement and less ideas generated. Due to these reasons, Ventures Spirit have created a new method of involving their employees which they call the adventure game. In this game, they put their employees in a position of an entrepreneur to pitch an idea to an internal board of investors. Here it is important for employees to build cross functional teams, learn how to pitch and work collaboratively. The pitching occurs in several iterations where a team competes against other teams to reach another round.

As Venture Spirits believes great business ideas can be created from inside the company, with their consulting services they focus on how to create an environment that empowers employees and unlocks untapped potential. Furthermore, combining the empowerment of employees with externally sources methods and ideas can result in entire new paths for a company to pursue. This notion is reflected through open innovation which Chesbrough (2003) describes as “combining internal and external ideas into architectures and systems whose requirements are defined by a business model”. Furthermore, Bogers and West (2013) have observed the greater role external sources play in complementing or improving a firm’s internal capabilities.

Challenges When Implementing Platforms

When talking to Geerinck about some of the main challenges involved with implementing platforms, he described them as five hurdles. The first hurdle is that extroverts dominate, and introverts don’t participate. Applying our abductive logic here, we were curious to examine how this hurdle can be overcome without a definitive answer other than allowing a holistic applications in which every employee can voice their opinion. The second hurdle identified by Geerinck was that the highest paid person in the room talks while the others are quiet and don’t participate. This is a hurdle that can be observed in most traditional hierarchy structures. Venture Spirit avoids this hurdle by introducing anonymity into their adventure game. During the ideation process, the pitching to the investor board is done anonymously online in order to not kill creativity. This results in the investor boards focusing on the content of the idea rather than the individuals behind the idea.

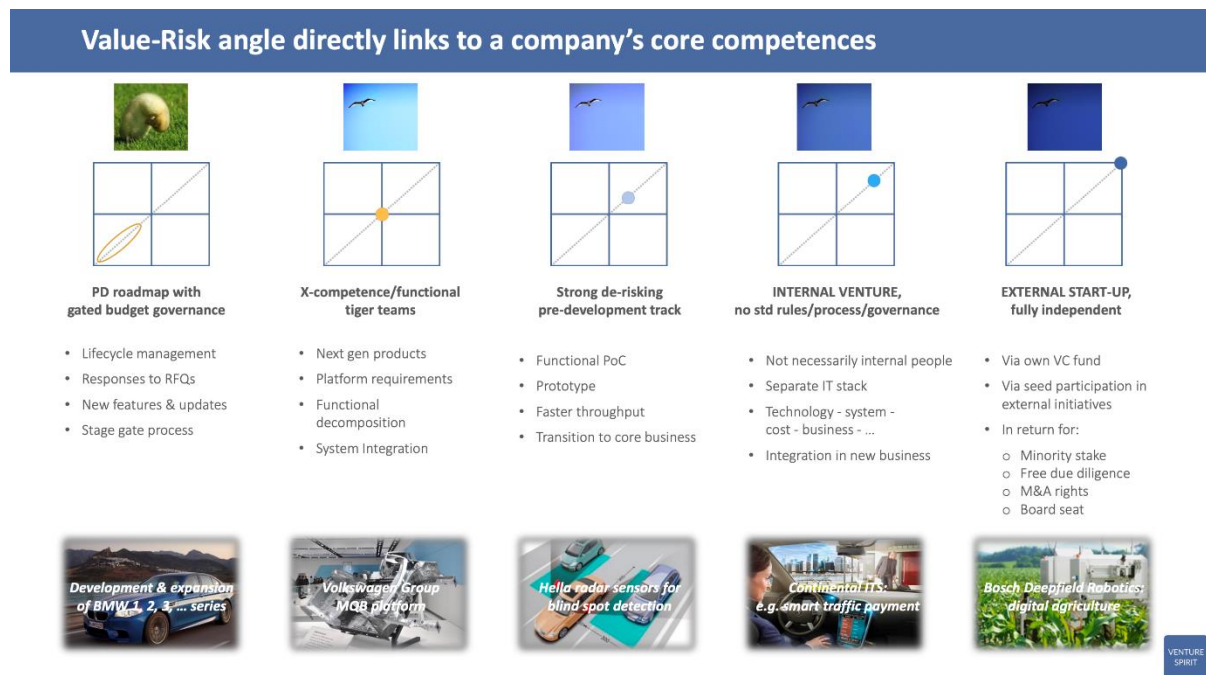
What surprised us here was that all the hurdles up to this point strictly focused on the human aspect/involvement of the implementation process. It is also important to note that when Venture Spirit plays the adventure game in their client’s companies, they are a part of this process too in order to feed the internal environment new ideas. The third hurdle identified by Venture Spirit focuses on cultural language differences. As a business usually communicates in one universal language, there are often employees who have not fully mastered that language which can make participating through

discussion difficult. The fourth hurdle especially affects global organisations as it focuses on allowing locations from different time zones to participate in the process. Often the creativity of certain locations can be killed when they have to participate at inconvenient times. The fifth and final hurdle identified by Venture Spirit is a phenomenon called not invented here. It focuses on the commitment employees have to an idea that was not born from inside the company's knowledge base. Geerinck states that specifically with this hurdle, companies need consultants to help them overcome it. Consultants have seen the world, various markets, companies and more importantly, many innovations which means they can highlight to their clients that novel ideas rarely exist anymore and that they are adaptations to create a market fit. This argument reassured us of our choice in the sample group for our research. As this syndrome focuses on stepping out of one's comfort zone, it is one of the key learnings Venture Spirit wants to provide their clients with. This is the reason why Venture Spirit chooses to involve their consultants in the anonymous adventure game as they can feed a business with new outside ideas, which they learn to support initially not knowing that they come from outside the company. Once support for an outside idea is gained, the not invented here syndrome is overcome as employees and managers focus on the value it can offer rather than its origin.

[Assessing Innovation: Value versus Risk](#)

When an organisation wants to extend its innovation activities using platforms, they must identify a way to evaluate each project. Venture Spirit developed a model that compares the value created from a specific innovation model, to the risk taken. Hsieh And Wu (2019) recognise this with their definition of innovation, "the process of translating an idea or invention into a product or service that creates value for which customers will pay". Therefore, Venture Spirit suggests that innovation models can be measured for its value and risks. The different models of innovation can be seen below in Infographic 1 'Value-Risk angle directly links to a company's core competencies' provided by Thomas Geerinck.

Infographic 1: Value-Risk angle directly links to a company's core competences



(Geerinck(a), 2020)

Infographic 1 shows a correlation between value and risk. As the value generated using a specific innovation model rises, so does the risk asserted. As the value generated is fixed though, the risk can be reduced meaning that it is the responsibility of the team to de-risk the different models. According to Geerinck, the risk rises because the closer the model moves to the right, a fully independent start up, the greater the disconnect to synergies it has to the focal firm's core competencies. Furthermore, Geerinck highlights that the higher the risk involved with an innovation activity, the lower the chances of success. This can only be increased by de-risking through internal governance structures that are responsible for evaluating the progress in the different innovation models a company pursues. Therefore, firms must create governance structures to evaluate the value versus risk dimensions when pursuing their innovation activities.

Röchling

Analysis Overview

In the following analysis we will explore key topics or themes identified during our interview with Klaus-Peter Fett, Chief Information and Digital Officer at Röchling SE and Co (see Appendix F for company and interviewee background). The topics or themes that will be investigated include the differences in strategy between their three divisions, traditional pipeline strategy, innovation, platform strategy (is there a specific strategy?) and relation to innovation, and finally dependencies and the power of people. Furthermore, an overview of the individual interview themes is provided in Appendix G. The analysis of the topics of themes will be investigated as they relate to the literature as well as Röchling. We will then end the analysis Röchling interview by reviewing the key takeaways and themes. The detailed interview overview can be found in Appendix H5.

Differences Among the Three Divisions

Due to the different areas of focus and industry regulations that affect the three divisions in Röchling we found that there are varying strategies and business models. The industrial division is very traditional, selling through partners and distributors to roughly 10,000 customers. Here products are sold as semi-finished so in most cases they do not have a lot of knowledge of the user or how they are using their products. In this division we can see that Röchling has locked themselves against competition and are thus not platform or network oriented. The automotive division is very service oriented, working together with approximately 20 customers (big OEMs) to bring suggestions, collaborate, and optimise Röchling's materials for their client's needs. According to Fett, it could even be called platform oriented, but not with externals. The aim of the product created with the customer is used to hopefully give them a competitive advantage or at the very least to fulfill the requirements of the contract (lasting roughly 5-10 years). According to Fett, during that time there is not much Röchling can do in terms of product innovation unless otherwise directed by the client. Finally, within the medical division the partnerships are contracted for even longer than

automotive. We found that this because within the medical industry it takes years to get product certifications. For instance, when working with big pharmaceutical clients validation is a very important and specific process. So much so that if a production line is validated a machine cannot be moved 2 meters in any direction without restarting the validation process from the beginning, per Fett.

Traditional Pipeline Strategy

Across all of our interviews (with the exception of Gaest/Airbnb) we wanted to investigate whether or not the firm followed a traditional pipeline strategy, or in the case of consultancies whether or not their clients do. Our intention for this line of questioning was to set the stage for the rest of the interview by gaining an understanding of the firm's perspective as it relates to the current organisation of the firm. We discovered that when we first brought up the term traditional pipeline strategy that there was a misalignment on the meaning behind the terminology. Fett originally viewed our line of questioning as a criticism of the strategy asking, “maybe you can start by telling me what is wrong with a traditional pipeline strategy?” (Fett, 2020). Once we explained our thought process behind the question however, this misalignment was quickly cleared up. Another reason we felt this was an important point to establish was that as we know from literature firms do not have to be strictly pipeline or platform businesses, they can be both. As previously mentioned, highly competitive pipeline giants like Walmart, Nike, John Deere, and GE have all incorporated platforms into their business models in order to be competitive with platforms entering their marketplace (Van Alstyne *et al*, 2016). Therefore, we felt it was important to establish where a company fell on that spectrum before moving on with the rest of the interview.

Innovation at Röchling

As identified in the literature, digitalisation plays an important role in innovation as it expands the scope of resources firms can use while also requiring them to take a holistic approach in considering resources and addressing the needs of all their customers and

partners (Amit and Han, 2017). The first step towards digital innovation or digital transformation we found however is difficult for many firms to identify. Fett reminisced over a joke made on weekly call with 98 CEOs and CIOs of large companies about who enforced the digital transformation at your company; a) the CEO, b) the CIO, or c) COVID-19? Though the joke was intended as a way to light heartedly acknowledge the serious state of affairs caused by the COVID-19 pandemic, it highlights a very important point. We propose that these set of circumstances have forced the hands of many firms into undergoing a digital transformation. As digital technology invites a different business and organisational logic (Yoo *et al*, 2010) firms therefore we deduce that firms have had to adopt new logics to create new avenues for communication. Digitisation also feeds into the ability of an infrastructure to remove any dependence on location. Furthermore, it stimulates the distribution of expertise across geographical and organisational boundaries. We believe this has been an important factor for companies during the pandemic as large gatherings and travel between cities, countries, and continents has been suspended. Regardless of the cause, the digital transformation that many companies are experiencing is a very big and noteworthy step which is irreversible. Once things begin to normalise we suggest that companies will be in a much stronger position to innovate and adopt platform thinking into their strategy, for it is on the basis of such increased digitalisation and openness that platforms emerge. The layered architecture of digital technology specifically creates a powerful basis for building platforms that span industrial boundaries (Constantinides *et al*, 2018).

Though it is very dependent on the discipline, we have observed that innovation is very important at Röchling. Digital innovation is seen as the key driving force for the future, according to Fett. A cross industry innovation board reports directly to the CEO, Hans Peter Knäbel. The level of involvement of the CEO we argue is important as having top level support is required in order to have organisational change. Currently Fett's team is working to assess how processes and procedures can be further built out into the rest of the company. As we found on their website, pioneering is another key value at Röchling and can be broken down into two main areas. The first is exploring areas in which there are no other players. This first path is a classic example of the blue ocean strategy which dictates that success comes from making competition irrelevant by creating 'blue

oceans' of uncontested market space (Kim and Mauborgne, 2005). The second, more vital area, is returning to and executing on information or knowledge that they have gathered through past experiences. In open innovation Roper *et al* (2008) proposes that a firm's innovation outputs should reflect both internally generated knowledge (a result of in-house R&D) as well as different types of knowledge sourced from external partners. They go on to suggest that the efficiency of the firm in translating said knowledge into product and process innovation can be linked to the characteristics of the enterprise, its prior knowledge, and managerial resources (Roper *et al*, 2008). Their first point speaks to Röchling's desire to return to key ideas that were first generated both through in-house R&D and potentially also from collaborations with customers. The priority placed on digital innovation and pioneering by Röchling is a strong firm characteristic. Thus, if we apply Roper *et al's* (2008) second point, Röchling should be efficient in translating knowledge into product and process innovation.

Platform Strategy and Innovation

We discovered that outside of internal networks, operational, and supply chain management platforms Röchling does not have a specific external platform strategy. However, as with many companies the power of search enabled by digital platforms like Google is a big area of focus and for Röchling. In this case we see the digital platform (Google) acting as an intermediary, connecting advertisers (Röchling) and Web users (potential customers) (Bakos and Katsamakas, 2008). One of the most important aspects of this strategy, as noted by Fett, is figuring out how they can show what they have in different terms of search. Here, we must note the level of importance for Röchling to understand their customers' needs and identify different pain points in order to come up with diverse and creative ways to appear in a search based on those customer pain points. This is an area in which we can categorise Fett as an invaluable asset and source of knowledge to Röchling due to the eight years he spent working at Google. In addition to the use of digital platforms Röchling we found that there are some internal platforms being used. However, due to the closed nature of their ecosystem Fett was not able to share details regarding innovation resulting from said use.

The biggest advantage of using digital platforms in terms of search for Röchling is the impact it has on sales and marketing. We can also classify another important factor of digital platform use for Röchling as the extended reach to end user segments in a global market setting (Gatautis, 2017). This is important because at simplest level Röchling's goal is to sell their products meaning that potential customers need to be able to find them. In this context we know it is important to ask questions like, "How can I better position my products?" and "What are the best combinations of keywords, questions, and answers to make this happen?" (Fett, 2020). Fett related this to the use of an AI strategy, for example, to bring answers to questions that may not have even been asked yet, thus anticipating what customers may ask next time. We can see that using a digital platform therefore allows Röchling to avoid making the same mistakes over and over again which in turn means they avoid spending money on a project that someone else has already proven to be a good or bad approach. Furthermore, when we examine this from an engineering or R&D perspective digital platforms also mean that you do not have to waste time trying to reinvent the wheel instead they facilitate efficiency and inspire innovation. Thus, in this case reach is about expediting and promoting knowledge versus reaching a greater number of people.

In regard to external interactions for sources of innovation we discovered that Röchling is currently open to actively searching for external platforms. We can classify an existing customer environment as a small ecosystem however, this would be considered a closed ecosystem. However, the tools for a partner and platform ecosystem are already in place as they more or less have a supply chain that they can deliver, per Fett. As we have seen Röchling has already gone through the first step of a digital transformation and is not trying to establish an innovation mode that works for them by finding the right external platform or partner. Therefore, we believe the position that Röchling currently finds itself in mirrors key pipeline to platform shifts outlined by (Van Alstyne *et al*, 2016); a shift from internal optimisation to external interaction and a focus on customer value to a focus on ecosystem value. Though Röchling is not looking to abandon its pipeline business we concluded it is actively searching to bring on external interactions and create more open ecosystems through the use of external platforms and partnerships.

We know that firms use platforms for multitude of reasons however, when it comes to choosing a potential platform all firms must carefully consider what characteristics make it valuable for them. Röchling, we discovered, thinks of external platforms as partnerships or something they can join that will provide them with a valuable exchange. A study conducted by Ernst and Young (2016) found there are four different types of platforms users. When we apply this view Röchling can be classified as both a *key partner* and *peer producer*. We argue that they fit into the *key partner* user type because of their desire to be involved in platform activities to extend value creation and transfer possibilities. On the other hand, they also possess traits of a *peer producer* user in that they want to contribute to platform activities with value offerings and are actively seeking opportunities to improve value offerings. Therefore, as noted by Fett, they must ask themselves questions like, “What do we bring to the table and what does the platform bring to the table?”, “Is it a win/win situation?”, or “Are we just paying for a service?”(Fett, 2020).

Dependency and the Power of People

Path dependency is a frequently used concept found within the social sciences and generally refers to the idea that events occurring at an earlier point in time will affect events occurring at a later point in time. More specifically, it characterises historical sequences in which contingent events set institutional patterns with deterministic properties in motion (Djelic and Quack, 2007). Therefore, we believe path dependency is an interesting concept to consider as it relates to innovation and the use of external platforms. Here we investigated what path dependency means to Fett and the potential implications depending on the context. We found that Fett viewed this through a lens of more general dependencies. According to Fett, if they decided to build an internal innovation platform or hub it would limit them to that path for a period of time due to the high investment in people and development. On the other hand, we discovered that there seems to be more flexibility when taking a platform approach with ecosystem partners that are independent from your firm. This can be examined looking at the hypothetical implications of joining an innovation platform like Plug and Play that brings together start ups and large corporations from around the world (PlugandPlay,

2020). As a result, we suggest that entering this ecosystem inherently means a firm must have a certain degree of openness and as a result the way a firm treats competitors or possible competitors may change.

From here our discussion evolved into a broader conversation of dependency. As companies go through a digital transformation and engage more with platforms, we wanted to examine what, if any, impact this has on employees and necessary skill sets. Fett believes this encompasses one of the biggest dependencies they have, finding the right people. Furthermore, he proposed that some of the most important skills needed in the future is empathy. Other important skill sets include the ability of metrics thinking, openness, and ambition.

Key Takeaways

From our interview with Fett and subsequent analysis we were able to identify key takeaways relating to the use of platforms and strategy. We discovered that not only does digitalisation play an important role in innovation but that the first step towards digital innovation or digital transformation is difficult for many firms to identify. However, at this time many firms are being forced to undergo a digital transformation due to the global pandemic. This increased digitalisation and openness creates an environment for platforms to emerge (Constantinides *et al*, 2018).

At the time of our interview we found Röchling in a phase where digital platforms play an important role in facilitating internal innovation. Due to market constraints and industry dynamics they currently have a closed ecosystem and therefore could not share details with us. It is clear however, that Röchling holds the knowledge and understanding of how to move forward with the use of external platforms, now it is a matter of finding something that meets their needs and criteria.

Finally, we were surprised to find that platforms did not play a larger role in Röchling's overall strategy. Literature focusing on platforms tends to frame platforms as a disruptive force that either creates entirely new marketplaces that compete with more traditional firms or as beating out traditional pipeline businesses virtually any time they

enter an existing market. Because of this our initial assumptions led us to believe that regardless of industry that having a platform strategy would have a higher level of importance.

Webasto

Analysis overview

In this section, we will highlight some of the relevant themes we identified while analysing our interview with Matthias Arleth, the Deputy Chairman for Webasto, an Automotive supplier (see Appendix F for company and interviewee background). The key themes we identified were innovation at Webasto, platform specific strategies and platform advantages and disadvantages. In addition, an overview of the individual interview themes can be seen in Appendix G. Furthermore, the detailed interview overview can be found in Appendix H6.

Innovation at Webasto

At Webasto, platforms are used in various ways to conduct innovation and optimise processes. They separate their use of platforms into product platforms and business platforms. For product platforms they use their internal capabilities to further new product development but also know how to collaborate with external partners to build new products or improve on their existing suite. Simpson *et al* (2006) defines product platforms as a “collection of assets (components, processes, knowledge, people & relationships) shared by a set of products”. With a business platform Arleth means utilising platforms in order to create new business inside of the company which can then be spun out or integrated. Ruggieri *et al* (2018) defines a business platform as an “architecture based on hardware/software, that works as an aggregator organising an ecosystem...to co-create value”. At Webasto, over the last couple of years they have adapted how to work internally on their product platforms. By using cross functional teams, they develop their products using employees across several divisions which can adapt their products when shifts are required due to financial developments, market

changes, etc. This change from functional management structures to cross functional teams is highlighted by Simpson *et al* (2006) who denotes that these teams allow businesses to reinvent themselves and enter new markets. While Webasto do not use their teams for this specifically, they still have developed this capability for their toolset. Simpson *et al* (2006) also denotes that market pressures are forcing companies to rethink their product development. These shifts in their product platforms can be both in the hardware of a product as well as the software aspect. Arleth highlights that the amount of software in their products has grown exponentially over the years and while they have always had to innovate in both hardware and software, they saw the need to work with externals in order to improve the software aspect.

Webasto works with a variety of external platforms such as accelerators, innovation hubs, start ups, and corporate venture capital platforms. Arleth states that they have a couple of hundred cooperation partners that bring innovations to Webasto as this is similar to how innovation is brought to car manufacturers by suppliers. In a quarterly driven mode, they evaluate 50-70 start ups and pick approximately 10% and make a pilot project with them. These projects normally focus around the industry application of the start ups idea of a specific use case Webasto has identified. Arleth also highlights the necessity of collaborating with start ups as and that “it’s not easy working with start ups ... but without trying this, we will never find something new” (Arleth, 2020). Therefore, acknowledging that new ideas should be sourced from external expertise and applied in internal settings.

Platform Specific Strategies

As Simpson *et al* (2006) highlights, cross functional teams are essential for implementing platform strategies. As we pointed out in the section above, Webasto has the capabilities with cross functional teams to successfully implement innovations when facing different challenges. In order to successfully identify and utilise platforms and their innovation, Webasto has developed a clear platform strategy to accomplish their overall corporate strategy objectives. They use an unnamed corporate innovation platform to help them source different start ups and technologies they want to collaborate with. When working with different start ups, they aim to industrialise the

idea of a start up that could have applications to their product. Therefore, highlighting a value exchange as the start up can see if their idea is ready to scale, and Webasto has a new feature for their product suite. However, Webasto often does not do these collaborations alone with a start up. They decide to collaborate with one of their corporate partners when there is no direct conflict of interest such as slightly different applications of the technology in question. This shows elements of coopetition and highlights that Webasto has embraced an open innovation model. Arleth mentions a coopetition with numerous corporate partners for a start up that has since then grown into a larger more established company called Celonis. All in all, Arleth mentions that they see platforms as a tool to achieve their strategic objectives and don't see a clear dependency on the use of them for their company to grow. This argument helped us develop our assumptions further as we questioned the importance of incorporating platforms into a company's strategy. So is there a level of necessity to involving platforms, or is it rather seen as a supporting process to the overall achievement of strategic objectives.

Platform Advantages and Disadvantages

During our interview, different aspects of advantages and disadvantages when using platforms were mentioned that we had not considered prior to the interview. One obvious advantage was bringing new ideas to the company. As company knowledge is becoming older and more closed in, employees can be too focused on their specific task and therefore are very closed minded and blind to innovations in the ecosystem around them. By working with start ups and other innovative companies, Webasto has found a way to expand their internal knowledge and empower their employees to pursue new ideas. This is done through their cross functional teams, which makes them collaborate with employees from different divisions through different processes, and by working with externals, which expands their knowledge base. Arleth found that combining these two elements even triggered intrinsic motivation of the employees and he saw that their "own people are looking to start ups and often are inspired to do it even better" (Arleth, 2020). West and Bogers (2013) highlight this as a cultural change and state that this change is a requirement for the successful use of innovation. The second advantage of

using platforms is for employer branding. Further highlighted by Arleth, modern styles of working in a large network of start ups and collaboration with corporates on innovative ideas makes their brand more attractive for talent. The third advantage of working with platforms is being able to collaborate with large corporates. As corporates often have similar problems in differing competitive fields, they can collaborate to solve the issue through a project. This way of collaborating is unprecedented especially in highly competitive fields such as the Automotive industry. Gawer (2014) describes this as a feature of ecosystems, where actor roles and dynamics in platform ecosystems are changing and allows them to work in different collaborative and competitive fields. This can be attributed to companies becoming more aware of what Jacobides *et al* (2018) describe as 'thin crossing points'.

A disadvantage of working with platforms is that is generally a very capital-intensive undertaking. Arleth highlights that it is especially difficult to convince the finance department of these endeavours as platforms and the value creation from them are challenging to substantiate. Simpson *et al* (2006) proposes that the value of a platform can be measured, but these metrics are insufficient to capture financial success (Simpson *et al*, 2006). Therefore, we identify that new metrics that are not common in financial planning have to be adopted in order to convince this department of the validity of working with platforms. Another disadvantage of working with platforms mentioned by Arleth is the risk of distraction. Ideas generated from working with platforms may be interesting, but it is important to make sure these pursuits are in line with the company's strategic objectives. Therefore, we identify that it is allowing your employees enough freedom to develop their ideas combined with controlling these efforts in order to achieve the company's overall strategy.

Cross Analysis of Interviews - Relating Insights and New Themes to Literature

Overview

After completing the analysis of the individual interviews, we were able to identify commonalities that resulted in an overarching set of themes. Appendix G serves as an

overview of the key themes or topics as they relate to each individual interview. Though the table outlines a variation of different themes we felt that internal innovation, organisational change and value were the most prevalent and also the most important. Despite a slight variation in wording across some of the key themes highlighted in Appendix G, elements of the three themes are present throughout all interviews. This differentiation in terminology can be attributed to the context and perspective of each respective interview and interviewee. However, we propose that the general notion and meaning of the individual terms can be subsequently grouped into themes and thus analysed across the different interviews.

This section is the culmination of the abductive logic approach that we applied throughout our research process. A significant part of abduction is the process of continuously providing links between literature and the gathered data resulting in new interpretations of patterns and possible explanations. Having developed the three overarching themes by connecting aspects of the individual interviews, we will also examine how these themes connect to our existing pool of literature as well as new works of literature. To clarify, this will not be a full in-depth literature review, but rather a discussion of our insights in relation to literature. The themes of internal innovation and organisational change were not covered in our literature review whereas value was briefly mentioned as we initially felt that it was significant but did not warrant a full review. However, after conducting the analysis of our interviews and overarching themes we now feel that value deserves more attention.

Theme 1 - Internal Innovation

When we look at where some of the best innovations originate from, we find that it is often attributed to venture capitals (VC's). As we know from the interview with Deloitte Digital, when examining external sources of innovation in places like VC's you find structure is an important element.

"The reality is that if you actually look into where innovation is very successful, and you look at venture capital companies, what you find is that they're incredibly well structured. So even though these, these programs and platforms are supposed to incentivise creativity,

you need a very firm structure, which also means you need a structure whereby you regularly decide according to visible and transparent criteria, whether or not you continue with the project” - Goldstein (2020)

Therefore, Deloitte Digital attempts to replicate the structure of successful VC's when assisting their clients to create internal innovation platforms. When trying to help their clients build these internal innovation platforms Deloitte Digital aims to support the creation of a governance unit, measurements for efficiency, criteria for success, and a funding strategy. Venture Spirit has a similar approach they apply to their clients through their adventure game. Here they aim to replicate a VC environment by introducing a pitching process structure with an investor board within the focal firm. The focus here being on making their clients more aware of the benefits of internal innovation as they already have certain unlocked knowledge and creativity within. As we can see both Deloitte Digital and Venture Spirit are advocates of internal innovation and employ a similar approach by replicating successful innovation models within their clients' firms.

When looking at how internal innovation is approached and monitored, Webasto has built up a system which aids them in making decisions regarding internal innovation projects. This includes an innovation board that evaluates whether or not to continue a project based on a set of milestones. Röchling on the other hand, has implemented a cross industry innovation board that reports directly to the CEO. The main responsibility of the innovation board, composed of engineers from the various divisions, is working together to prepare presentations of innovative ideas. From Röchling and Webasto it is clear that internal innovation is still prevalent. What we also notice is that these are stage gated process and governance structures which are present in traditional pipeline thinking. This means that the certain processes and structures can be cross appropriated to different new approaches within a firm.

Taking a look at literature we find that traditionally internal innovation was synonymous with closed innovation where firms generated their own innovation ideas, then developed, built, marketed, distributed, serviced, financed, and supported them on their own (Chesbrough, 2003). However, we found that not many firms followed a fully closed innovation approach. Furthermore, due to developments within and outside the

innovation arena it became necessary to make the innovation process more open (Huizingh, 2011). Chesbrough's (2003) definition of open innovation, "the use of purposive inflows and outflows of knowledge to accelerate internal innovation, and expand the markets for external use of innovation, respectively" is the most widely accepted definition of the term. Lin Chao (2003) takes this notion to an extreme by suggesting that open innovation models have made closed innovation models completely obsolete.

For our purposes it is important to highlight that Chesbrough (2003) internal and external innovation strategies are complements and not substitutes. Yet, when looking at literature focusing on open innovation we find that the majority focuses on external versus internal sources of innovation. It is also not uncommon for people in real world business settings to first look to externally platforms for sources of innovation. From our interviews with digital consultancies however, we found that a core focus for them is attempting to help show clients that innovative ideas can and should be sourced internally. Rather than depend on the traditional closed methods for facilitating internal innovation digital consultancies like Deloitte Digital and Venture Spirit aim to replicate structures and practices of successful external innovation platforms and VC's within their clients firms. The application of this can be seen by established firms like Webasto and Röchling that have utilised these new ways to conduct internal innovation that deviate from traditional closed innovation models.

Though the works of (Brunswicker and Vanhaverbeke, 2019; Poot *et al*, 2009; focus the majority of their writing on open innovation on external sources of innovation there are also some that have acknowledged this imbalance. Grönlund *et al* (2010) argue that the existing literature falls short in describing how firms have adapted their internal models and processes to facilitate open innovation. Huizingh (2011) takes this acknowledgement a step further suggesting that in terms of explaining open innovation adoption the internal environment in a firm is more important than the external environment. On the other hand, Cassiman and Veugelers (2006) suggests that internal innovation activities and external innovation activities are complementary, but the degree of complementarity is subject to the firm's strategic environment.

A case can be made that there is a level of uncertainty among firms of how to successfully implement internal innovation. Gassman et al. (2010) suggested that the internal process by which firms manage open innovation exists more as a process of trial and error as opposed to a professionally managed process. Huizingh (2011) furthers this point by identifying an integrated framework to help managers decide when and how to deploy open innovation practices as the missing piece. We found that Deloitte Digital, etventure, and Venture Spirit all shared this view as well, which is based on their experiences working with firms across different industries and with varying levels of knowledge. For example, etventure often finds firms do not have a clear understanding of what platforms are and that conducting a scoping workshop is helpful to identify what firms really mean when they are talking about platforms and how they can be applied within a firm in terms of innovation.

Theme 2 - Organisational Change

In this section of the analysis we are approaching organisational change by examining the shift in ways of thinking and processes necessary to facilitate organisational change and lay the groundwork for subsequent internal innovations. Organisational change is clearly reflected in etventures classification of different mindsets regarding platform understanding. As platform understanding is a trigger for organisational change, a focal firm approaches work differently in internal and external dynamics. We also found that this was an important factor in our interview with Deloitte Digital. Here, we discovered the shift in mindset from a managerial way of thinking to a start up way of thinking as a key initiator of organisational change. This means that when firms begin to establish internal platforms or programs for innovation they must create criteria for success, align on metrics that go beyond revenue, learn to accept failure, and create an internal governance structure to monitor and manage projects and processes involved with the platform. Failure is a part of organisational change and as we discovered during our interview with etventure a critical part of platform understanding requires a development in evaluating company projects and processes in previously unfamiliar ways. As we can see from both our interviews with etventure and Deloitte Digital, topics like learning to accept failure and aligning on metrics that go beyond revenue deviate

from traditional corporate business approaches and in turn become the catalyst for organisational change.

We know from our interview with Deloitte Digital that change within an organisation is a challenge for almost all firms. In any instance where a new project or platform is being introduced there are bound to be naysayers and people opposed to change. However, if a firm is committed to making organisational changes in order to foster things like internal innovation management may have to make the tough decision to let employees go who do not want or are not willing to change. Like Deloitte Digital, we saw that Venture Spirit also acknowledges that change can be painful. Keeping in mind what we had learned in our interview with Deloitte Digital we probed Venture Spirit to provide us with courses of action firms can take to ease any concerns employees may have regarding change before resorting to more drastic measures like employee termination. One way Venture Spirit does this is by emphasising clearer communication between management and the employees through methods such as campaigns and contests in order to trigger intrinsic motivation for the new methods of working. Through our interviews one of the root problems we discovered were the naysayers within the firm. We can attribute this stance taken by naysayers to either a lack of understanding of the new methods involving platforms and or the employees seeing this as additional work rather than replacing and simplifying some of their current activities. Webasto experienced this issue in the past but over the years have moved beyond this hurdle using methods similar to the ones expressed by Venture Spirit.

In order for organisational change to take hold it is important to have top level support from within the firm. We found that Röchling exemplifies this as they have their cross industry innovation board reporting and presenting ideas directly to the CEO. It is with this top level support and backing that Fett's team is then able to work towards establishing processes and procedures that can be further built out into the rest of the organisation. The upper management buy-in can also be seen by the digital consultants etventure who see a clear correlation between executive buy-in and the success of organisational change. However, etventure also stressed the importance of assuring that middle management understands the change processes in order to assure success.

Moving on to the literature we find that organisational change in modern organisations is destined to persistently exist as a result of internal and external influences (Armenakis and Harris, 2009; Burke, 2002; Herold and Fedor, 2008; Malone, 2004). Shin *et al* (2010) defines organisational change, derived from past literature of organisation change, as “alterations of existing work routines and strategies that affect a whole organisation (Herold and Fedor, 2008)—has become a central focus in the strategic and change management literatures (Beck *et al*, 2008; Huy, 1999; Pettigrew *et al*, 2001)”. Additionally, change management can be defined as “the process of continually renewing an organisation’s direction, structure, and capabilities to serve the ever-changing needs of external and internal customers” (Moran and Brightman, 2001). As these two themes seem to be viewed holistically, for the purpose of our analysis, we will do the same.

A challenge of change management is leaving the past where it belongs. Rowe and Boyle (2007) acknowledge that one challenge is overcoming past rewards and punishments in order to facilitate a new environment in which incumbents can develop and learn. Shin *et al* (2010) concludes that employees play a large role in the successful implementation of organisational change but recognise a gap in knowledge of successful resources to enable employees with the necessary resources. In order to provide these new resources, Kanter *et al* (2003) recognise that a transition into new leadership can provide new resources. From our interviews with Venture Spirit and Deloitte Digital, we found that issues regarding empowering employees can be solved through good communication tools such as campaigns and rewards systems such as contests. Contrary to Kanter *et al* (2003) belief regarding leadership, both of these digital consultants recognise leadership as an effective way to provide new resources to their employees, however, also recognise that often the newer methods of change are easier to understand for the top level management suggesting that current management can also adopt to change rather than just being replaced. Tidd *et al* (2011) highlight a shift of focus from structure and culture to the improvement of internal processes, something we have observed in the interviews we conducted as well as the aforementioned literature. Emphasising employee passion to drive internal organisational performance is a result linked by Hagel *et al* (2011) to multi-dimensional

value creation especially when trying to develop and implement new platform applications for a firm.

Theme 3 - New Ways to Create Value

Across interviews we realised that a key shift when moving from a traditional mindset and implementing organisational change is the concept of cooptation. When speaking with Deloitte Digital, Goldstein said a key aim is to hopefully guide their clients' mindset from that of competition to a combination of cooperation and competition (cooptation). In doing so firms can then leverage new sources of value. These modes of cooptation are also seen within Webasto as they often decide to collaborate with a competitor on a start up industrialisation project. According to Arleth, the essence here is that each party can siphon their own value through cooptation without creating any conflicts of interest in competing industries.

Expanding on the concept of cooptation we found that value exchange is an important factor. As mentioned in the Röchling analysis they are actively searching for external platforms. We discovered that a vital consideration for Röchling when considering an external platform is value exchange. This is because Röchling views external platforms as a partnership or something that they can join that assures a value exchange. Here we can see that value exchange is an important characteristic for established firms when engaging with platforms. On the other hand, when looking at platform-based firms like Gaest (Airbnb) we see that value exchange takes on a different meaning. In multi-sided platform businesses, platform leaders focus on facilitating the exchange of value between both sides of the market. Gaest (Airbnb)'s platform allows hosts to easily list their spaces and reach thousands of business professionals. On the other side of this value exchange users can book spaces on Gaest (Airbnb) for interviews, meetings, workshops, and more.

Taking a further step back and evaluating ecosystem value, etventure highlights the importance of understanding the value an ecosystem can provide. Their stance is that the network within an ecosystem should be seen as a valuable asset and that this is a critical step in order to understand ecosystem value and develop a platform specific

strategy. Röchling therefore, can be seen as an example of a firm in line with the points highlighted by Etventure. In our interview we found that Röchling acknowledges that due to market constraints and ecosystem dynamics they currently have a closed ecosystem. However, they also understand the inherent value available in a more open ecosystem which is why they are searching for external interactions and platforms to create new more open ecosystems.

When looking at value through modes of cooperation, value exchange and ecosystem value, we identify a direct link to Venture Spirit's models of value versus risk. Venture Spirit notes that certain modes of innovation produce measurable value outcomes which come at correlatingly high or low risks. Therefore, we can identify a correlation between all aforementioned modes of creating and identifying value and the framework highlighted by Venture Spirit as this can be seen as an overarching.

In literature we find that when approaching value from a holistic view of the firm, strategy lays out the vision for value creation and value appropriation objectives from its own perspective (Ritala and Tidström, 2014). Furthermore, as value conceptually relates to platforms, they can be viewed as new sources for value creation, capture, and transfer (Gatautis, 2017). We found that regardless of the classification of firms being interviewed (platform-based, established firms using platforms, or a digital consultancy) all of our subjects acknowledged and agreed with the notion that platforms create value. We also discovered that a key functionality of platforms, collaboration and cooperation, were a hot topic for both digital consultancies like Deloitte Digital and established firms such as Webasto and Röchling. Specifically at Webasto, the topic of cooperation added value through not only the project itself, but through collaborating with other large corporations. According to Padulat and Dagnino (2007), cooperation by definition is based on a partially connected interest structure, given the presence of collaboration and competition in the same relationship. Here, value is produced when complementary and supplementary resources are integrated among competitors with the aim of creating higher value than would otherwise be possible (Bengtsson and Kock, 2000; Gnyawali and Park, 2009). Research also suggests that firms collaborate in order to create value and subsequently compete against each other for the value that has been created (Ritala and Tidström, 2014). In our interviews

however, we discussed coopetition only in the first scenario described by Ritala and Tidström (2014).

As noted in the previous section value exchange was also an important topic for established firms (Röchling) and platform-based firms (Gaest/Airbnb). Value can be created from the joint integration of resources between an established firm and external platform (Chandler and Vargo, 2011). On the other hand, for multi-sided platform-based firms like Airbnb value exchange takes root in the community built by the platform. Here, the value of community activity benefits both the platform-based firm and community. Value exchange takes root in the community built by the platform (Young, 2016). This closely connects to what we perceived with our interview with Gaest (Airbnb) as they identified community management as their main role on the platform.

Value is often co-created among a network of firms including collaboration and competition in the same or different markets (e.g., Brandenburger and Nalebuff, 1996; Möller and Rajala, 2007). Applying this logic it thus stands to reason, that when examining a more holistic view of value we found ecosystem value to be an important topic covered in all of our interviews. This is because an ecosystem consists of a network of interconnected organisations (organised around a firm or platform) focusing on the development of new value through innovation (Autio and Thomas, 2014). Adner and Kapoor (2010) refer to innovation ecosystems to be formed around common business objectives that can be satisfied through collaborative innovation activities. Therefore, when value is being produced through collaboration or coopetition it is also contributing to the overall value of an ecosystem.

Discussion and Conclusion

Relevance to Social Science

Over the past two decades we have seen an explosion in the amount of platform-based companies coming into existence. Not only are we seeing a large number of platform businesses, we are also finding these platform-based businesses spread across a

multitude of industries at all varying levels of the supply chain. In some instances these platforms based businesses are creating entirely new markets which are changing the way both businesses and consumers operate. Furthermore, in a historical context platform-based companies are experiencing tremendous growth and scale in a short amount of time. Due to these factors we believe it is not only relevant but important to investigate the implications that an increase in platform-based company growth has for more traditional and established firms.

We explore these relationships and implications through a strategic lens while at the same time leaving our research question broad, allowing flexibility and the potential discovery of new and relevant streams as they relate to our topic. We also believe that our research and interview design further bolster the level of relevance of our study. To our knowledge there is no other study that offers and compares the perspectives of platform-based firms, established firms using platforms, and digital consultancies in one body of work. Comparing and contrasting these different perspectives allow us to explore various levels and contexts of platform innovation.

Connecting our Findings to our Research Question:

Initially when exploring platforms we identified them as a big disruptive force effecting a variety of industries. From this our assumption was that companies would prioritise integrating platforms directly into their corporate strategies. However, throughout our research and analysis we found that this is not the case, but that companies often rather utilise platforms for their innovation and improving processes. Additionally, across all of our conducted interviews, the interviewees had different understandings of what was meant by platforms which furthermore resonates with the confusion of the term in addressed literature (see Appendix A). We were able to mitigate this by providing the aforementioned platform definition by Parker *et al* (2016). Keeping these findings in mind we will now revisit our research question.

Research Question: How can companies align their platforms and strategies?

In order for companies to align their platforms and strategies, they have to have a dedicated team responsible for managing the platform dynamics as they relate to the firm's strategy.

The team should include members across various divisions of a firm. Furthermore, the management of this team should be reporting directly to the top-level management to ensure that the platform activities are complementing the strategic objectives of a firm's strategy.

A critical step for companies when aligning their platforms and strategies is first of all taking a step back and understanding what platforms mean for your company. Identifying in which capacities to deploy platforms is relevant, specifically to insure that these deployments will support your company's overall strategy. Another important aspect to consider here are current industry dynamics, especially when considering open platforms it is relevant to know if your industry partners are ready to make a transition with you.

An aspect we had not previously explored extensively which turned out to be highly relevant was internal innovation. We were inspired by Deloitte Digital's notion of identifying the 'best practices' of venture capital and applying them to your internal processes. Even though literature suggests a connection between technology and platforms, we decided to disconnect the technology aspect and look at the desired outcome of platforms. These outcomes being; connecting individuals, exchanging innovative ideas and creating value. Combining the notion provided by Deloitte Digital with the desired outcomes of a platform, we suggest that platforms can be a mindset or a physical group of people focussing on how to apply cross industry best practices to their internal processes. This development can also be attributed to the insights from our interviews which show companies developing their internal workforce. This was not identified by our initial literature review, nor did we find a convincing amount of evidence on what resources are essential for such internal development when revisiting the topic more extensively in our analysis.

One thing that surprised us was that strategy was not as large of an aspect as we initially thought when relating to platforms. Platforms are viewed as a tool in a

companies toolset to accomplish their strategy rather than a determining factor influencing their strategy. This could be due to the process of developing platforms being more of a trial and error driven process. In order to increase the successful use of platforms, companies should have a dedicated team that aligns and governs the use of platforms with their strategic goals.

Sub Question: What effect, if any, does being a platform owner or user have on a company's strategy?

To answer this question we have to separate it into its respective parts. *As a platform owner, you are inherently more invested in the outcomes of the platform as well as being responsible for the different users of a platform.* These could be suppliers, competitors, employees, and other individuals. Being a platform owner usually stipulates that it is an essential tool to achieve your strategic goals and thus making the firm dependent on its outcome. *As a platform user or member of a platform ecosystem, you are not as invested/dependent on the aforementioned criterion and therefore you are not dependent on its outcome.* Meaning, it does not have a damaging effect on your strategy.

Originally, we thought this would be an interesting point to explore that would complement our main research question however, it was difficult to siphon this information from firms in our interviews. This is because firms do not necessarily want to share what dynamics work well for them in different contexts, thus providing competitors with valuable success/failure information. This speaks to the majority of firms' mindset still being very closed off and/or haven't understood what platforms can mean for them. Initially, literature led us to believe that this could be a relevant question. But having not developed enough clarity on this aspect of platforms could also be due to our small sample size of platform-based firm interviews. However, as multi-sided business firms can be classified as platform owners, an aspect we learned from our exchange with Airbnb is that community building seems to be a large focus of their strategy. Linking this back to our main research question, this would mean that for platform-based businesses, platforms directly influence their strategies.

Sub Question: How can companies leverage platforms to create more innovative ecosystems?

As our analysis shows, the use of coopetition and cross industry collaboration facilitates a value exchange that results in the creation of a more innovative ecosystem. Therefore, they need to have a degree of openness in order for these two modes to take place.

Understanding the value of ecosystems and networks is a key first step to inspiring innovation. Another step is understanding the limitations of your industry dynamics to be able to govern innovation. On the other hand, our results suggest looking beyond the borders of your industry and allowing cross industry collaboration could result in more innovative ecosystems. Furthermore, modes of coopetition discussed in our analysis could result in companies leveraging their platforms by expanding the perspectives available in their ecosystem.

Revised Research Question

Once we had conducted our research and completed our analysis we reflected on our research question. After we had an opportunity to reflect we realised that some of the difficulties we had in providing a more concrete answer to our research question was due to the broadness of our research question. Due to the exploratory nature of our design we cast a very wide net with our research question which resulted in equally diverse responses from our interviewees. This in turn made it difficult to aggregate the data in a way that provided a direct response to our research question. Furthermore, when trying to answer our second sub question we realised that a platform cannot be seen as an asset that can be leveraged which made the question particularly difficult to answer. Moreover, when analysing our interviews, we identified that the questions and conversations we had weren't directed towards leveraging platforms, but rather the use of them. Re-examining our question with these learnings we would maintain the exploratory design however, we would change our research question to the following:

Revised Research Question: How can established companies mobilize their internal resources and capabilities to use platforms as sources of innovation?

With this new research question we would still have a broad topic to explore, yet this new question would also enable a more narrow and focused field of research. This research question allows us to build on the learnings we have developed as internal resources and capabilities are initiators for innovation through internal and external

platforms. The question specifically notes that we are approaching the topic of platforms from the point of view of an established firm and their internal resources.

Limitations

The broadest limitation of our research is rooted in the exploratory and qualitative versus quantitative path we chose. Because of the broad and open nature of our design our findings cannot be generalised or definitively applied to businesses (Atieno, 2009). While we can make suggestions based on our analysis further research is required. Furthermore, despite our interviewees being able to provide rich data due to their seniority in the firm and past experiences another limitation of our research is the small quantity of interviews. Similarly, we did not have an equally balanced level of perspectives as we were not able to interview the same number of firms in each category (platform-based firms, established firms using platforms, and digital consultancies). However, our biggest category (digital consultancies) was also arguably the most knowledgeable as they work with number clients across various industries with fluctuating levels of platform understanding.

We discovered another limitation also existed in the use of academic language during interviews. Though terms like 'path dependency' may be commonplace within academia the same cannot always be said for a business setting. Therefore, we found ourselves having to explain what we meant by certain academic terminology which could also have further implications for interviewer bias. In this case when giving an explanation of academic terminology an argument could be made that as interviewers we provided an explanation that was more suited to our view of platforms and thus influenced the interviewee in one direction or another. Furthermore, Hood (2006) argues that since words are intrinsically less precise than numbers they are therefore more prone to subjective analysis, leading to biased results. Additionally, in terms of bias, we both approached our topic through the lens of our shared master's program, MSc.

Organisational Innovation and Entrepreneurship. As a result, we tend to think mainly in terms of innovation, whereas if one interviewer was a finance student and the other an engineering student there would be two vastly different perspectives contributing to

the research. However, as researchers we also have differing past educational and work experiences that we can draw from. Furthermore, our similar understanding of the topic at hand allows us to bounce ideas off one another which would be difficult for researchers from different academic disciplines.

Another issue we encountered was not being able to triangulate our evidence. A benefit of semi-structured interviews is that they provide the opportunity for discussion or exploration of new topics that arise during the data collection (Marshall *et al*, 2015). In our case one of the main benefits of our interview design also turned out to be a hindrance. Based on the way an interviewee interpreted a question there were times when we received a long-winded response that did not directly answer the question. This may also be due to the fact that in semi-structured interviews help to develop an understanding of the ways in which managers make sense of, and create meanings about, their jobs and their environment. Thus, the issue becomes how to get inside the life work of managers so that we as researchers are able to interpret this life world from within (Schwartzmann, 1993). As a result, we were left with interesting new topics that may be useful in future research streams but for our purposes made it difficult to triangulate our data and find definite or precise answers to our research question. Another factor that made the triangulation of our evidence difficult was the proprietary nature of the activities that some of the firms were involved in. Due to this our interviewees had to speak at a somewhat broad level without being able to give examples or rather gave their perspective on the overarching topic. This dynamic left some things up to our own interpretation and thus made it difficult to compare to other interviews and develop definitive answers to our research question.

Lastly, there were also some limitations that resulted from the current state of global affairs and COVID-19 pandemic. We were not able to travel or meet with our interview subjects and therefore had to conduct all of our interviews in a virtual setting without a video connection. This meant that we were not able to gather data by making observations which is an inherent characteristic of qualitative research (Aspers and Corte, 2019). For example, we were not able to note physical characteristics or reactions of the interviewee being questioned in their natural setting. The pandemic may have also had an impact on the limited number of firms we were able to interview

as firms were busy adapting their business to a new reality and did not have time to participate in interviews.

Gaps and Inconsistencies in Platform Literature

After conducting our literature review, research, and subsequent analysis we identified several gaps or inconsistencies in literature. First and foremost, we discovered that there exists an overwhelming amount of definitions for the term platform itself. Definitions tend to be very context specific (i.e. digital, innovation, e-commerce, multi-sided, etc.) and within each category or context there are even more deviations of the term platform accompanied by yet another definition. Despite being presented in different streams or environments the definitions also seem to have a certain degree of overlap, adding to the confusion. We also found this was a problem that has extended into real world business applications and contexts. When conducting our interviews, we generally had to give an introduction of what platforms meant for our purposes so that all parties were aligned. However, there were also times when it seemed the interviewee was thinking of platforms in different light based on the question or how their thought process developed. In an effort to alleviate some of the confusion and misalignment we believe it is important to try to map out the different platform definitions to be able to identify when a specific type of platform is most appropriate in any given context. In short, establishing an outline which industry dynamics fit and are appropriate for a specific type of platform.

Building on the topic of multiple platform definitions we also found that the vast majority of had the component of technology within the definition. We acknowledge that technological advances and digitalisation play a significant role and have led to the inception of successful and revolutionary platforms like Uber, Etsy, and many more. However, we believe that only examining platforms through a technological or software lens is limiting. Platforms do not have to have a digital infrastructure, they should also include physical groups that focus and embody the essence of what a platform means by definition, irrespective of technology. These physical groups can come in the form of internal (or external) innovation hubs, incubators, intrapreneurship groups, etc (see

Appendix B). Among the other characteristics outlined in Table 1, these physical groups facilitate collaboration, are interactive in nature, and foster value creation and exchange. Many times, physical platforms like innovation hubs are thought to be external in nature however, as we have learned firms can find success in emulating a similar structure internally, applying it across their divisions and processes. Furthermore, from an internal perspective these proposed physical platforms can also help to ease disconnect by bringing people from different silos within the firm and promoting cross divisional collaboration.

Our last critique of platform centric literature is that recent work puts a great deal of emphasis on the disruptive aspect of platforms. Moreover, the literature we encountered in our research provided a great deal of insight from the perspective of a multi-sided platform. This is not entirely surprising due to the success and rapid growth multi-sided platform businesses have had over the past two decades, as previously mentioned. However, we feel that this creates a gap when looking to examine the perspective of an established firm wanting to incorporate platforms into their strategy or business models. We did come across some literature that suggested ways firms could achieve this for instance, through building their own platforms, acquiring an already existing platform, or joining a platform-based ecosystem. Yet there did not appear to be much further explanation for how or why established firms can incorporate platforms into their strategy or business models to foster innovation, streamline processes, or facilitate other activities.

Suggestions for Further Research

As our research approach was very broad, there are a few different aspects that identified that could be recommended for further research. As platforms are directly linked to ecosystem value and the underlying literature suggests companies moving from customer value to an ecosystem value focus, it might be interesting if and how the ecosystem value can be translated back to customer value, through means of new products, process optimisation, features and more. Another aspect is to develop more depth to our research through multiple rounds of interviews with the interviews. This

could lead to a move from an explorative approach to developing case studies on specific notions such as internal workforce development when implementing platforms. As we identified that a critical step to using platforms is understanding their use for certain capabilities, it is also interesting to look at the transition from understanding to implementing in terms of micromanagement. For example, how does a certain platform specific use alter an employee's day and furthermore, has it improved an employees productivity, motivation, quality of work, organisation, etc.

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