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# Business model evolution in platform companies

## A multiple case study of Finnish platform SMEs

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**Abstract:**
Alustatalouksista on tullut osa jokapäiväistä elämäämme. Samalla niiden merkitys maailmantaloudessa on kasvanut huomattavaksi. Yhtäaikaisesti alustatalouksia käsittelevä tutkimuskirjallisuus on laajentunut vuosi vuodelta. Tutkimuksissa korostuvat kuitenkin pääosin suuret kansainväliset yhtiöt, vaikka todellinen pelikenttä on täynnä pieniä ja keskisuuria yrityksiä. Perinteinen alustatalouksia käsittelevä tutkimuskirjallisuus tarkastelee alustatalouksia liiketoimintamallien näkökulmasta staattisessa tilassa keskittyen erityisesti verkostovuorovaikutuksiin. Verkostovuorovaikutukset puolestaan linkittyvät käsitteisiin kriittinen massa ja muna ja kana -ongelma, jossa pohditaan alustaosapuolten vetovaikutusta toisiinsa. Alustatalouskirjallisuus ei kuitenkaan kohtaa suoraan liiketoimintamallien tutkimusta. Alustataloustutkimuksen pirstaleisuus ja yhteisesti jaetun terminologian puute kuvaavat hyvin tutkimuskentän moninaisuutta.

Tässä tutkimuksessa selvitetään, miten alustatalousyritysten liiketoimintamallit kehittyvät yritysten elinkaaren aikana sekä mitkä tekijät ovat olleet aikaansaamassa liiketoimintamallien muutosta. Erityistä huomiota kiinnitetään siihen, ovatko muutokset liiketoimintamalleissa liittyneet verkostovuorovaikutukseen tai niin sanottuun muna ja kana -ongelmaan. Samalla pyritään kirimään kiinni alustatalous- ja liiketoimintamallitutkimuksen välistä kuilua hyödyntämällä perinteistä Business Model Canvas -työkalua. Kyseessä on laadullinen monitapaustutkimus kolmesta suomalaisesta PK-yrityksestä, jotka välittävät tavalla tai toisella työvoimaa hallinnoimillaan digitaalialustoilla. Haastateltavat ovat kaikki yritysten perustajajäseniä ja nykyisiä toimitusjohtajia.

Tutkimustulokset osoittavat, että kaikkien kolmen yrityksen liiketoimintamallit ovat muuttuneet merkittävästi perustamisestaan, mutta keskenään eri tavoilla. Eniten muutokset korostuivat liiketoimintamallin asiakaspäädyssä: asiakassegmenteissä, arvolupauksissa ja tulonlähteissä. Syitä liiketoimintamallien muutoksille olivat esimerkiksi tarve skaalautua ja uudet asiakastarpeet. Tulokset vihjaavat varovasti myös siihen, että verkostovuorovaikutuksen painotus tutkimuskirjallisuudessa ei vastaa merkittävyydessään alustayritysten käytännön kokemusta asiasta liiketoimintamallien muutoksien syynä. Alustatalouksien käytännön johtamiseen tapausyritykset antavat kiinnostavia näkökulmia. Kaikilla mittareilla menestyneimmän tapausyrityksen toimitusjohtaja ei nähnyt yritystään tai sen liiketoimintamallia alustataloudeksi. Alustatalouden menetelmiä vain hyödynnettiin liiketoiminnassa käytännön ongelmien ratkaisuun, kuten skaalautumiseen ja työvoiman oikea-aikaiseen saantiin. Alustatalouslogiikkaa ei siis kannata välttämättä ajatella yrityksen ensisijaisena liiketoimintamallina, vaan se voi olla vain yksi työkalu ja mahdollisuus yrityksille muiden joukossa.

**KEYWORDS:** platform, business model, network effect, business model canvas, chicken-and-egg problem

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## Abbreviations

BM = Business Model
BMC =Business Model Canvas
IT = Information Technology

# 1 Introduction

Digital platforms have become central to the contemporary global economy. Several of the world's most highly valued companies operate as platforms, and platform-based ecosystems increasingly serve as the primary infrastructure for many aspects of daily life for both individuals and organizations (Yoffie et al., 2019). Since the early 2000s, the increasing dominance of platform-oriented enterprises as key contributors to economic development has sparked scholarly interest across various academic disciplines (Goldfarb & Tucker, 2019).

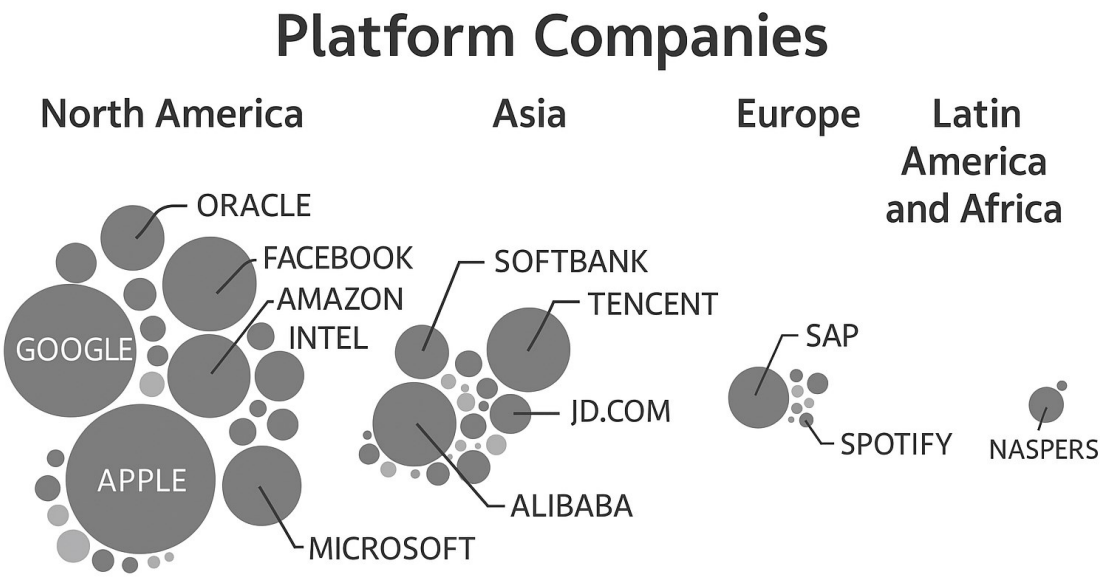


**Figure 1.** Platform companies and their sizes visualized in different continents (Parker et al 2016).

Temporally aligned with the rise of platform research, business model research has also gained prominence (see Abed Alghani et al., 2024; De Reuver et al., 2018). The most cited classic platform literature, from authors such as Parker (2005,2016), Van Alstyne (2016), Evans (2003, 2007, 2016, 2008), Rochet and Tirole (2003), primarily addresses platforms as business models but does not engage with or draw from the broader business model literature. To fill this gap, one overarching theme of this thesis is to integrate

the perspectives of business model literature and platform literature. This is being done by integrating the classic tool of business model canvas (Osterwalder & Pigneur, 2010) into platform context. In this framework, case platform companies will be analyzed to identify the changes made to their business models. This aspect is particularly worth studying, as platform literature predominantly examines companies and their business models in a static state (see e.g. Mallon, 2021), whereas business model literature more often acknowledges a trial-and-error reality in the development of business models (Remane et al., 2016; Bitetti & Gibbert, 2022). Also, the majority of platform literature focuses on why platform companies succeed (Gawer & Cusumano, 2008; Guillen, 2021; Lee & Raghu, 2014; De Reuver et al., 2018), while some studies address the reasons behind their failures (Van Alstyne et al, 2016; Mancha et al, 2021; Evans & Schmalensee, 2016). Less commonly explored is the space in between—research that examines how platforms adapt to avoid failure and maneuver toward success.

## 1.1 Aim, RQs and justification of the study

Ascending from the broader theme of combining platform and Business Model literature, the aim of this thesis is to examine how business models of platform companies evolve over time and what lead to the Business Model alterations. Which part of the Business Model have been changed and what factors prompted the change? Special attention is also given to whether the BM changes are linked to a positive network effects or to a chicken-and-egg dilemma.

The research questions are as following:

1. How business models evolve during the platform companies' lifecycle and what lead to change?
2. Were the changes related to gaining positive networks effects or tackling the chicken-and-egg problem?

The research question 1 is a straight call for Täuscher & Laudien (2018, p. 328) who address the following: "Future research could take a longitudinal perspective to investigate

such BM changes and explore potential change patterns throughout a firm's or market's lifecycle." Täuscher & Laudien (2017, p. 1) also state more vaguely that "There is a great need for new empirical research concerning the business models of digital marketplaces". Also Fehrer et al. (2018) prompt that future research could explore the dynamics of continuous business model innovation in the realm of platforms. Research question 2 arises indirectly from the aforementioned platform literature from authors such as Parker (2005,2016), Van Alstyne (2016), Evans (2003, 2007, 2016, 2008), Rochet and Tirole (2003), which primarily conceptualizes platforms as two-sided or multi-sided markets. This body of research places strong emphasis on network effects, often reducing the broader business model discussion to the question of how companies are able to foster and sustain positive network effects. If company representatives perceive that significant changes to their business models have been made in areas other than network effects, this challenges the traditional focus of platform literature. Since the managerial implications of such studies often concern how companies should act to achieve desired outcomes, the absence of changes in the business model related to network effects would suggest that this may not be the primary challenge platform companies are coping with, assuming that changes to the business model are made in pursuit of improved economic performance. Therefore, when a company alters its business model, it implies that previous assumptions or conclusions were flawed, or that a better solution has emerged, prompting the change.

The research questions will be addressed by examining Finnish platform-based small and medium-sized enterprises (SMEs) through a qualitative multiple case study approach.
There are several reasons for choosing Finnish SMEs as the focus of this study. First, they offer the opportunity to collect first-hand data. Small and medium-sized firms are generally more approachable and open to participating in the context of a master's thesis. If the focus of this study was in large and well-known international platform corporations, obtaining interviews would be difficult, if not impossible. The interviewees would likely represent lower levels within the company, and stricter confidentiality obligations would constrain them. As a result, the research would have to rely primarily on publicly

available secondary sources. Some scholars have noted the scarcity of empirical research in platform literature and have suggested that this may be due to the difficulty of collecting data from companies (Cheng et al., 2024). Thus, the Finnish SMEs is a justified option. Secondly, the platform literature is full of examples of the most successful international platform companies such as Uber, Airbnb, Amazon, Google, Facebook, and Alibaba. Some of these companies are mentioned almost in every study (De Reuver et al., 2018; Eisape, 2020; Kim, 2016; Täuscher & Laudien, 2018; Zhao et al., 2020). Focusing solely on the largest global players in the platform economy does not provide a realistic picture of the diversity of platform companies and their business models. As platforms are widely regarded as one of the most significant opportunities in the modern economy, it is important to recognize that major international platform companies might be more of an anomaly than realistic a representation of the broader platform landscape. At the local level, for example in Finland, SMEs account for over 40% of GDP and represent 98.3% of all companies by number (Statistics Finland, 2023). Relying on the most well-known platform companies as case studies also contributes to a bias in the literature, which tends to emphasize success stories (De Reuver et al., 2018).

One justification is also the aforementioned fact that platform research is currently a highly prominent and academically relevant topic (Abed Alghani et al., 2024; Cheng et al.,2024). Overall, several studies highlight the lack of empirical research conducted within platform companies themselves (Cheng et al., 2024; De Reuver et al., 2018). This study tries to tackle also this broader concern.

## 1.2 Structure of the thesis

Following the introduction, Chapter 2 outlines the theoretical framework of the study. It begins by defining the concept of a platform and identifying the specific types of platforms and key concepts addressed in this research. The chapter also examines how platforms have been approached from the perspective of business models in previous literature. Chapter 3 dives into the methodology that is being used in the study and its relevancy and justification. In chapter 4, the findings of the study will be addressed. The final

chapter 5 will be a discussion section in which the theoretical and managerial contribution will be addressed. Also, the limitations of this study and suggestions for further studies will be discussed.

# 2 Theoretical background

This chapter examines the theoretical background of the study. The first subsection focuses on the concept of platform economy, the ways in which it has been defined in prior literature, and the terminology that has been used to describe platforms, What are the key concepts in the platform economy literature, such as the chicken-and-egg problem, network effects, and critical mass. Subchapter 2.2 provides a brief overview of the foundations of the business model and introduces the Business Model Canvas, the most widely used tool for its modelling. The final subchapter focuses on the platform business model, examining the tools employed for its modelling, the different types of platform business models identified in prior research, and the longitudinal studies conducted on business model evolution of platform companies.

## 2.1 What makes a platform?

The business models and core concepts of the platform economy are nothing new in the field of business. Various types of platforms have existed long before the advent of the internet—such as physical marketplaces, print media, and product standards that allow add-ons from other manufacturers, among others (See e.g. Evans & Schamensee, 2016). According to Alstyne and others (2016) what is different in this century is the profound impact of information technology, which has significantly diminished the necessity to own physical infrastructure and assets. IT has made the construction and scaling of platforms considerably more efficient and cost-effective, facilitated near-seamless participation that amplifies network effects, and improved the capacity to capture, analyze, and exchange vast amounts of data, thereby increasing the platform's value for all participants. Platforms play a central role not only in the ICT industry but also across sectors like media, finance, distribution, and even urban planning (Evans & Schamalensee, 2007). Examples of platforms are web search services, stock exchanges, instant messaging, barcodes, shopping malls, video games, travel reservation systems, container shipping, health maintenance organizations, online dating services, and real estate brokerages (Eisenmann et al., 2011).

According to (Cheng et al., 2024) platforms are defined by several core characteristics, including the use of information and communication technologies to facilitate and mediate user interactions, the systematic collection and exploitation of user-generated data, the presence of network effects that enhance platform value as user participation increases, and the ability to create or reorganize markets toward more efficient configurations. Similarly, according to Pettica-Harris and others (2020) platforms operate within a structured digital ecosystem comprising software, tools, regulations, and services. Their primary function is to establish an interactive online environment that enables and streamlines user engagement. More specifically, platforms leverage data analytics to facilitate efficient matching between different participants, aligning supply with demand. The platform economy is fundamentally driven by extensive, horizontally networked communication and interaction, which underpin its scalability and operational efficiency. Alt & Zimmermann (2019) see that platform businesses function as intermediaries, a role reflected in the various participants they connect: producers supply goods and services through the platform, which are then accessed by end users. Alt & Zimmermann (2019) note that at the core of the platform is its owner, who oversees its development and establishes the operational guidelines. Van Alstyne et al. (2016) see that all platforms share a similar ecosystem structure that includes four main participant roles: Platform owners manage governance and hold intellectual property rights. Providers act as the link between the platform and its users. Producers are responsible for creating the content or services available on the platform, while consumers are the ones who utilize these offerings. Platforms also deliver a range of services, including technological infrastructure that enables access through various channels (such as Android, iOS, or web browsers, in the case of Booking.com), as well as additional features that facilitate coordination, like product listings, payment systems, and logistics support. As can be seen from the literature, the depiction of platform revolves around its business model.

Platforms have been often cited as two-sided markets due to the nature of having independent parties both selling and providing. Similarly, the term multisided platforms has

been used for the same purpose (see Evans and others, 2016). A platform or electronic marketplace generally consists of two groups (referred to as "sides") that seek to engage with one another, whereas supply chains are inherently one-sided and should not be categorized as platforms (Tiwana, 2014). As articulated by Rysmann (2009) “a two-sided market is one in which two sets of agents interact through an intermediary or platform, and the decisions of each set of agents affects the outcomes of the other set of agents, typically through an externality.” The independence of the actors is a key element of platforms. For example, if a real estate agency sells houses through its own website, it does not constitute a platform. In this case, the sellers of the properties present their real estate to the agency, which then makes the decision to act as an intermediary between the seller and potential buyers. The communication and actions leading to the transaction occur between the agency and the buyer. In this sense, the agency is merely providing a venue for certain used properties. A network of real estate agencies selling houses in a single digital location, however, would constitute a platform. Also, key differences between platform companies and traditional businesses are the transaction cost and growth rates. As Zhao et al. (2020) addresses it: “compared to intermediaries outside the digital economy (e.g., insurance brokers, some department stores), these multi-sided platforms can introduce new transaction mechanisms more rapidly and at much lower cost.” Opportunities for a platform tend to emerge when excessive market friction impedes interaction between various user groups (Evans & Schmalensee, 2016). In these cases, the platform's primary goal is to lessen the barriers to participation—that is, to minimize friction to draw in new users.

Parker et al. (2016) describe platforms as a opposite of traditional “pipeline” businesses. Pipeline is a business in which the value is being created and transferred in a linear fashion; company designs a product and then manufactures it. After this the product is put into sale and the customer buys it. The whole process happens in the realm of the manufacturing company and inside its closed doors until the product is put into market. The process can be tracked step-by-step linearly and thus the pipeline can be also called as a linear value chain. Contrary to this, in platforms the value is created and transferred in

more complicated manner among the users of the platform. As Parker et al. (2016, P 6.) articulate it:

> In the world of platforms, different types users – some of them producers, some of them consumers, and some of the people who may play both roles at various times – connect and conduct interactions with one another using the resources provided by the platform. In the process, they exchange, consume, and sometimes cocreate something of value. Rather than flowing in a straight line from producers to consumers, value may be created, changed, exchanged, and consumed in a variety of ways and places, all made possible by the connection that the platform facilitates.

According to Parker et al. (2016) platforms overcome pipelines due to the scalability and elimination of gatekeepers. From a resource-based view, a key distinction between platforms and traditional pipeline businesses is that the platform's most difficult-to-imitate asset is its user base—the community it fosters and the resources contributed by its members. Zhao et al. (2020) illustrates differences between pipeline businesses, manufacturing platforms, and multisided platforms in Table 1.

**Table 1. Comparison of different type of businesses (zhaoe et al., 2020)**

| | Pipeline business | Manufacturing platform | Multi-sided platform |
|---|---|---|---|
| **What is the role of the focal firm?** | Producer (operating in linear buyer-supplier relationships) | Producer (operating within a network of suppliers) | Intermediary (enabling direct interactions between users) |
| **Who owns the product?** | Focal firm (change of ownership after sale) | Focal firm (change of ownership after sale) | Users |
| **How is value created?** | Through product features that deliver customer benefits | Through product features (co-developed with a network of suppliers) that deliver customer benefits | Through enabling and facilitating transactions between users |
| **How is value monetized?** | Charging money (e.g., asset sale, usage fee) for product features (single revenue stream) | Charging money (e.g., asset sale, usage fee) for product features (single revenue stream) | Often free for one user group; access or commission fee paid by other users/complementors (multiple revenue streams) |
| **What is the basis of competition?** | Product development<br>Price | Product development<br>Price | Business model development |
| **Examples** | McDonalds, Rolex, Stihl | Airbus, Boeing, VW | Alibaba, Airbnb, Uber |

Platforms can be enhanced by meta-platforms, which aggregate and compare multiple platforms—for example, Trivago consolidates information from various booking services like Booking.com, Hotels.com, and Expedia. This indicates that, based on their specific

functions or services, several platforms can coexist in a complementary manner and may be interconnected both vertically and horizontally, forming broader platform ecosystems (Tiwana, 2014).

Digital platforms and the economy they create have been referred to by various terms other than platform economy. Depending on the context, terms such as creative economy, sharing economy, and gig economy have been used (Kenney et. al, 2016). As a neutral and broad enough umbrella term, only platform economy is used in this thesis.

### 2.1.1 Terminology and different type of platforms

Various terms are used to refer to platforms, and the overall terminology is somewhat fragmented and inconsistent (Abed Alghani et al., 2024; Cheng et al., 2024). Lack of consensus for universally accepted terminology for platforms is evident. In many cases, different terms are used interchangeably. In research literature, time-bound emphasis is also evident: In the 1980s, platforms were referred as “networks” (see; Katz & Shapiro, 1985; Farrel & Saloner, 1985) in 1990s they were called as “intermediaries” (see; Holmstrom & Tirole, 1997) and by the 2000s term “two-sided market” gained traction (see; Hagiu, 2006; Rochet & Tirole, 2003). By the 2000s and within the term two-sided platform, the research field was mostly keen on economics (see: Evans & Schmalensee, 2007). In this field of research focus is more on pricing strategies and financial mechanisms than on innovation processes (De Reuver et al., 2018). Evans and Schmalensee (2008, p. 667) define two-sided platforms as “businesses in which pricing and other strategies are strongly affected by the indirect network effects between the two sides of the platform”. This line of research is continued by the seminal and most frequently cited scholars in the platform literature, who were referred to in the introduction.

In the literature, two-sided or multi-sided platforms are often described as intermediaries or central nodes that facilitate value exchange among multiple user and producer markets (e.g. Rochet and tirole, 2003, Gawer, 2014). In self-explanatory manner, platforms are now mostly referred as platforms (e.g., Parker et al., 2016; Cennamo et al.,

2018). Nevertheless, the concepts and terminology of two-sided and multi-sided markets remain prevalent and continue to appear in recent academic literature.

Some authors have subcategorized platforms. For example, Evans and Schmalensee (2008) classifies two-sided platforms into advertiser-supported media, transaction devices, software platforms and exchange platforms. Gawer (2014) separates platforms to internal platforms, supply chain platforms and industry platforms. Multiple different categorizations can also be found. Cheng et. al (2024) categorizes online platforms in four types: mobile platforms, online communities, e-commerce platforms and search platforms. Evans (2003) classifies platforms to market-makers, audience-makers, and demand coordinators. In their bibliometric analysis Abed Alghani et al. (2024) labeled five clusters of platforms in the academic literature as following: two-sided markets, industry platforms, digital platforms, innovation platforms and two-sided networks. Abeb Alghani et. al (2024) note that platform literature has also started to shift from platform products to industry platforms, which is quite understandable as the earliest examples of the platform studies were before the widespread use of the internet. It is worth noting that still many internet utilizing physical products such as smartphones (see: Boudrea, 2012) or video game consoles (see: Parker et al., 2016) can be seen as platforms. Platforms can be separated also by the participants of the platforms to C2C, B2C and B2B (see: Täuscher & Laudien, 2018). This thesis focuses on two- or multisided digital online B2C or C2C platforms.

### 2.1.2 Network effect and chicken-and-egg problem

At the core of platform business and platform business model is network effects, in some studies also referred as network externalities, positive-feedback effects or bandwagon-effects (Cusumano & Gawer, 2003). According to Alt & Zimmerman (2019) level of user interaction on a platform significantly affects its appeal. Because platforms serve as infrastructural tools, those with active communities and numerous potential interaction or transaction partners provide greater value to users and tend to attract additional participants. When positive network externalities are present, platforms can experience

rapid expansion and potentially achieve a dominant market position, sometimes resulting in monopolistic structures. Conversely, negative network externalities can hinder growth, making it increasingly difficult to reach a sufficient user base and interaction volume. Alt & Zimmerman (2019, p. 146) state the following about the powerful effect of network effects or network externalities: "From an economic perspective, the presence of network externalities Favors global platforms and almost inevitably leads to monopolistic inclinations". Eisenmann et al. (2006) also note that under certain conditions, network effects can lead platform competition towards "winner takes it all" scenario.
As the users of the platform create both the demand and supply, platform's value and usefulness is based on the amount of its users and especially the matchmaking ability of supply and demand. The most classic and oldest example of network effect is a telephone (see; Katz et al., 1985). A telephone, by itself, has no intrinsic utility. Its value increases in proportion to the number of other individuals who also possess a telephone and can be called. The same idea applies to the modern-day digital platforms.

Reimers et al. (2019) use Adobe PDF format as an example of network effect. People who use software to generate PDF files rely on others who have software to view them. The greater the number of users with PDF-reading capabilities, the more valuable it is to have tools for creating PDFs, and the reverse is also true. Typically, a third party facilitates the connection between these two user groups—in this case, Adobe, the company behind the development of the PDF format. An almost unlimited number of examples can be drawn to illustrate the presence of network effects. In platform literature, network effects are typically categorized into several types—each playing a distinct role in shaping user behavior and platform dynamics. The first major distinction is between positive and negative network effects. The positive network effect is the phenomenon previously referred to: the value of a platform increases as more people use it. Each additional user adds value to the network, making it more attractive to new users (Parker et al., 2016). In contrast, negative network effects occur when the growing number of users in fact reduces the value of the platform. According to Parker et al. (2016) negative network effects discourage user participation and can ultimately result in the collapse of the

platform. One such effect arises when increased user numbers, which ideally enhances matching opportunities between suppliers and consumers, instead makes it harder — or even impossible — for users to locate the most suitable connections. To prevent this outcome, platforms must strike a balance between open access and strategic curation. Curation involves the deliberate filtering and regulation of who can join the platform, what actions they can perform, and how they interact with others. When executed well, curation enhances user experience by making valuable matches more accessible. In contrast, poor or absent curation leads to an overwhelming number of low-quality matches, reducing users' ability to identify meaningful connections.

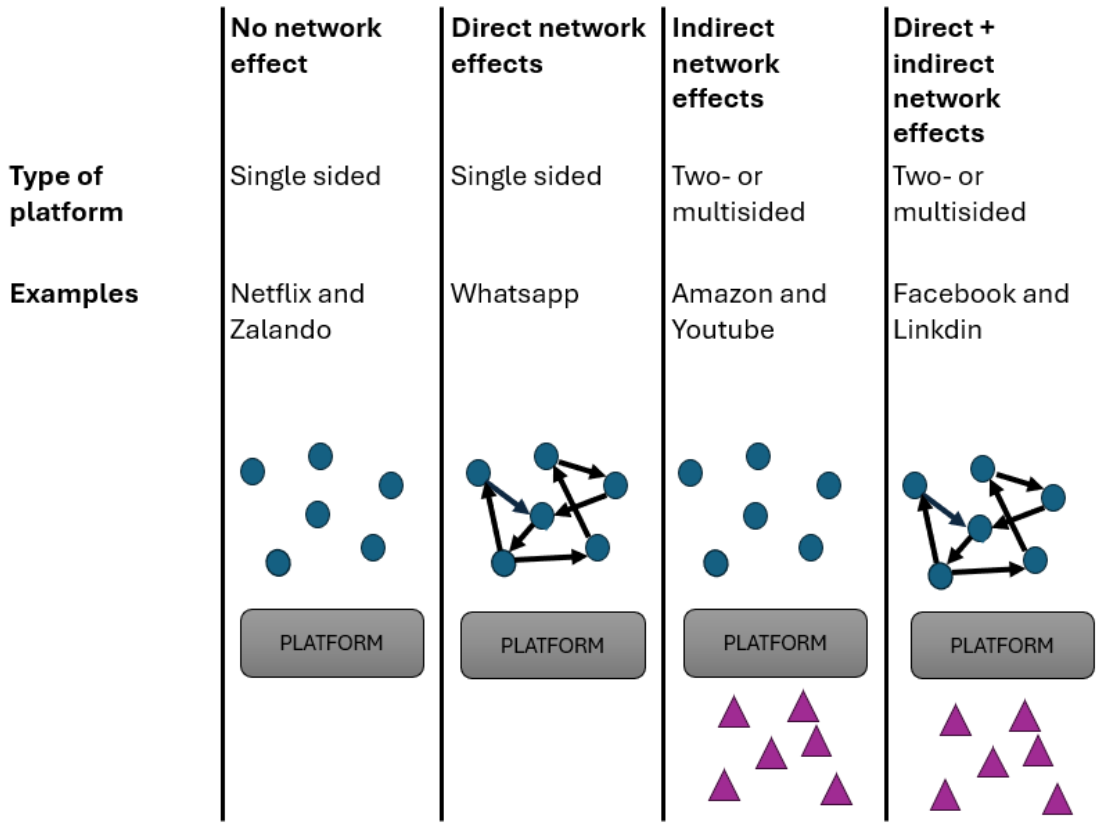


**Figure 2. Different type of networks effects illustrated. Adopted and modified from Nooren et al. (2018)**

Beyond the distinction between positive and negative network effects, these effects can be further categorized into same-side (direct) and cross-side (indirect) network effects, each of which may manifest in either a positive or negative form (See Parker et al., 2016; Parker & Van Alstyne, 2005). The aforementioned telephone is a solid example of the direct (see Katz & Shapiro, 1985) or same side network effect. Bringing the phenomenon to today's platform context, same side network effects occur when the value of the platform increases or decreases as more users join the same side of the market. In a typical two-sided market, same-side network effects refer to the influence that users exert on others within the same group—such as the effect that consumers have on fellow consumers or that producers have on other producers within the same platform (Parker et al., 2016). Cross-side network effects refer to situation in which the utility a user derives from the platform increases as the number of users on the opposite side of the platform grows (Parker et al., 2016). This is primarily what is meant by network effect in platform literature, as platforms are typically some type of marketplaces consisting of sellers (supply) and buyers (demand). The cross-side effect is particularly evident in the so-called chicken-and-egg dilemma. According to Parker et al. (2016), Evans (2003), Rochet & Tirole (2003) and many others the chicken-and-egg problem or dilemma in platform markets refers to the challenge of attracting users to both sides of the market when each side's participation depends on the presence of the other. For instance, consumers may be unwilling to join a platform unless there are sufficient producers or service providers, while those providers may hesitate to participate without a substantial consumer base. This interdependence creates a coordination barrier that platforms must strategically overcome in their early stages of growth. Moving forward, a key phenomenon associated with network effect and chicken-and-egg problem is the critical mass. Critical mass refers to the minimum number of users needed on one or both sides of a platform to make the platform valuable enough for continued growth (Evans & Schmalensee, 2010; Huang & Duan, 2012)  Alt & Zimmerman (2019) note that critical mass is a subjective construct, and that due to critical mass dynamics, only a few platforms in any given market segment are likely to remain economically sustainable. As a result, current platform operators invest heavily in expanding their platforms with new features and services. This trend is

evident in the significant research and development spending by major global internet firms (Simon, 2018).

The network effect, along with the closely related concepts of the chicken-and-egg problem and critical mass, are widely recognized as foundational elements in the academic literature on platforms. This prominence is evident through a simple bibliometric search using Google Scholar. A search for "network effect" AND platform yields approximately 29,000 results; "critical mass" AND platform returns around 127,000 results; and "chicken and egg problem" AND platform produces about 7,610 results. These figures underscore the centrality of these concepts in scholarly discussions of platform dynamics.

In this thesis, the term network effect refers specifically to the positive cross-side network effect, which is leveraged to overcome the chicken-and-egg problem by reaching critical mass.

## 2.2 Business model

The concept of business model thinking began attracting significant interest during the 1990s (Ehret et al., 2013; Coombes & Nicholson, 2013), and since then, it has seen a rapid and continuous rise in popularity among practitioners and scholars. A business model explains how a company creates, delivers, and captures value (Osterwalder & Pigneur, 2010).

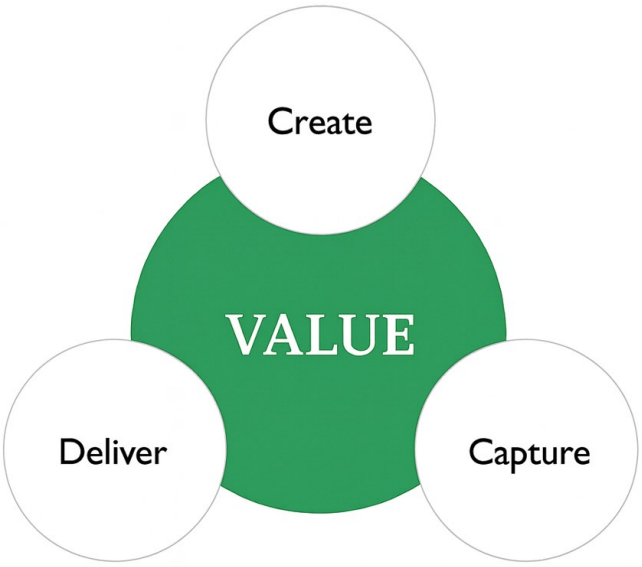


**Figure 3. Value dimensions of Business Model adopted and visualized from Teece (2010)**

Business model fundamentally clarifies what customers need and how much they are willing to pay. It outlines how a company addresses those needs by creating and delivering value, encourages customers to pay for that value, and ultimately transforms those payments into profit through effective structuring and management of the value chain (Osterwalder & Pigneur, 2010). Based on this perspective, scholars frequently categorize business models into three key components: (1) value creation, (2) value delivery, and (3) value capture (Teece, 2010). Changing or adjusting some part of these components

of business model is referred as business model innovation (BMI), and it has its own body of research (see e.g. Amit & Zott, 2010; Massa & Tucci, 2013) All companies, implicitly or explicitly, function through some form of business model (Chesbrough, 2007). Chesbrough (2007) has clarified functions of business model in the table 2.

**Table 2. Functions of business model (Chesbrough, 2007)**

The functions of a business model are:

1. **Articulate the value proposition**, that is, the value created for users by the offering.
2. **Identify a market segment**, that is, the users to whom the offering is useful and for what purpose.
3. **Define the structure of the value chain** required by the firm to create and distribute the offering, and determine the complementary assets needed to support the firm's position in this chain. This includes the firm's suppliers and customers, and should extend from raw materials to the final customer.
4. **Specify the revenue generation mechanism(s)** for the firm, and estimate the cost structure and profit potential of producing the offering, given the value proposition and value chain structure chosen.
5. **Describe the position of the firm within the value network** (also referred to as an ecosystem) linking suppliers and customers, including identification of potential complementors and competitors.
6. **Formulate the competitive strategy** by which the innovating firm will gain and hold advantage over rivals.

One of the most common ways to analyse business model is a business model canvas introduced by Osterwalder & Pigneur (2010). In contemporary management discourse, the business model canvas has assumed the role of a de facto diagnostic device for evaluating value creation mechanisms in firms (Sorri et al., 2019). In the canvas business model is separated to nine different parts which are customer segments, value propositions, channels, customer relationships, revenue streams, key resources, key activities, key partnerships and cost structure. Customer segments identifies the different groups of people or organizations a business aims to serve. Customer segments are based on needs, behaviors, or demographics. In value propositions, the focus is on the products or services that provide value to customers. It explains why people would choose this business over others. What problems it solves or what needs it satisfies. Channels refer to the methods a company uses to reach and deliver its value to customers. In the case of platforms, channel section is somewhat futile as the platform itself works as the channel. Customer relationships covers how a company interacts with its customers. It

outlines the type of relationship built with each segment — for example, personalized service, self-service, or automated support. Revenue streams explains how the business makes money. It includes all the ways income is generated from each customer segment, such as direct sales, subscriptions, or licensing. Key resources stand for the critical assets that the company needs to function. These are staff, technology, intellectual property, or physical infrastructure. Key activities outlines main tasks the business must perform to operate effectively, like production, problem-solving, platform management, or marketing. Key partnerships identifies suppliers, partners, or collaborators that help the company reduce risk or access additional resources. Finally, cost structure part details the major costs involved in running the business. It highlights what drives expenses and whether the business is more cost-driven (lean and efficient) or value-driven (focused on premium offerings).

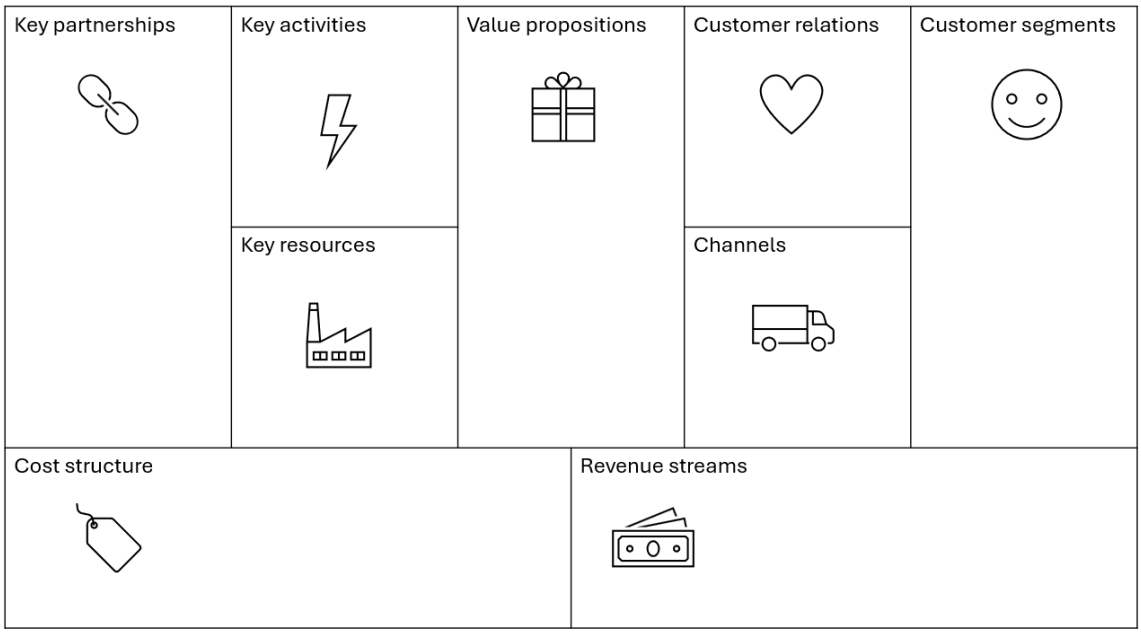


**Figure 4. Business Model Canvas (Osterwalder & Pigneur, 2010)**

## 2.3 Platform business model

As discussed in the previous chapters, the business model of platforms in the traditional platform literature consists of the mechanisms through which positive network interactions are generated. Aspects such as customer segments, value propositions, pricing, governing et cetera are linked to the network effects. Although this traditional body of research has not formed comprehensive models such as BMC for visualizing platform BMs, newer studies have done this.

The Platform Ecosystem Canvas introduced by Sorri et al. (2019) is a managerial tool designed to support business model innovation in platform ecosystems (see figure 5). Inspired by the Business Model Canvas, it translates the complex dynamics of multi-sided platforms into eight key characteristics that firms must consider:

1. Value – the kinds of value created and exchanged.
2. Producers – the actors generating value.
3. Users/Consumers – the actors consuming value.
4. Value capture/Monetization – how value is converted into revenue.
5. Filtering/Matching – mechanisms that connect producers and users efficiently.
6. Governance – the rules, norms, and control mechanisms guiding participation.
7. Resilience – the adaptability and maintainability of the platform in changing environments.
8. Network effects – the capacity to scale value through increased participation.

This model leaves out outside actors as key partnerships and channels from traditional BMC. The latter is highly justified due the fact that the platform works as the channel. The examination of a firm's internal strengths and core functions is likewise omitted, as the model does not include the components of key resources and key activities. The framework is tailored specifically to platforms and therefore disregards other dimensions of business operations that are of interest to us. For this reason, the model is not suitable for this thesis.

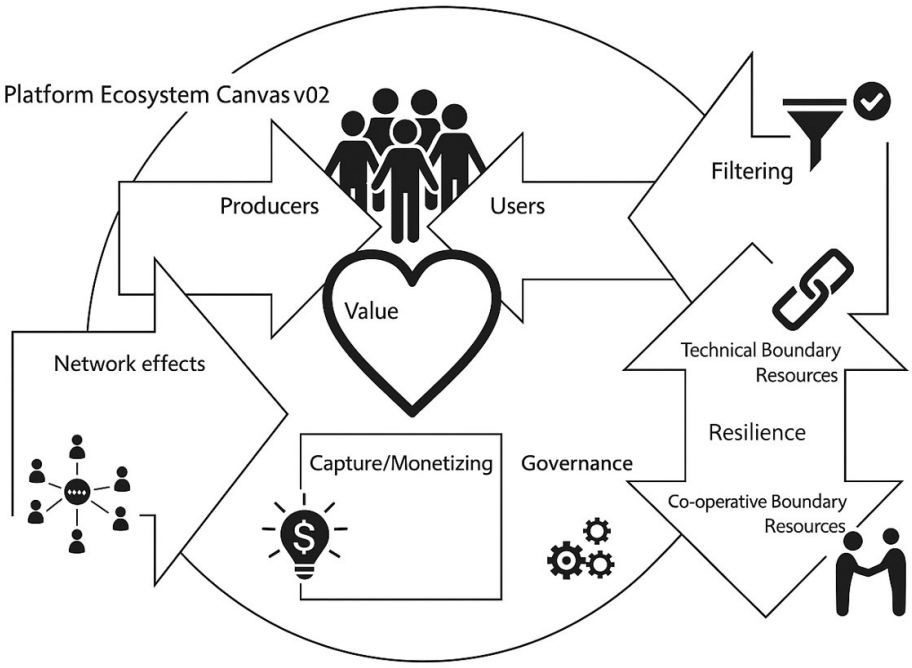


**Figure 5. Platform Ecosystem Canvas (Sorri et al., 2019)**

Taipale-Erävala et al. (2020) develops an updated version of the Business Model Canvas (BMC) that captures the logic of platform businesses operating in two-sided markets (see figure 6). The original BMC created by Osterwalder and Pigneur (2010) was designed primarily for one-sided, linear value chain businesses, where value is generated internally through resources, activities, and partnerships. Platform businesses, by contrast, create value by enabling interactions between distinct user groups and orchestrating network effects rather than by producing outputs themselves.

In the revised canvas (Taipale-Erävala et al., 2020), the notion of core interaction and the value unit around which exchange takes place are placed at the center. This shift underscores the idea that platforms create value primarily by facilitating matches between different sides of the market. The model recognises that roles on platforms are not fixed; instead of strictly distinguishing between producers and consumers, it adopts the term prosumer to capture the possibility that users may act as both. The framework

introduces elements such as filters, rules, and facilitation tools and services. Another key addition is the inclusion of network effect tactics, which highlight strategies for attracting and balancing participation on both sides of the market in order to reach a critical mass. Furthermore, the canvas draws attention to outsourced key resources, acknowledging that many resources traditionally held internally by firms may be provided by users or partners, thereby reducing costs and increasing scalability.

The updated canvas of Taipale-Erävala also places stronger emphasis on clarifying distinct value propositions for both prosumers and customers. It expands the revenue logic by incorporating income from both user groups, whether through transaction fees, subscriptions, advertising, or freemium models, alongside a transparent articulation of cost structures. The weakness of the model, however, lies in its complexity. Accounting for both sides of the platform makes the business model more difficult to conceptualize. To avoid complexity and aforementioned weaknesses often present in BM-modelings, this study will therefore employ the traditional Business Model Canvas (BMC) with the modification that both sides of the platform are considered as customer segments, even though only one of them constitutes the paying customer. The remaining elements of value creation are directed toward the paying customer. This approach is logical given that the case companies are platform companies engaged in labor intermediation. Accordingly, the value proposition is mainly income provided to those offering their labor.

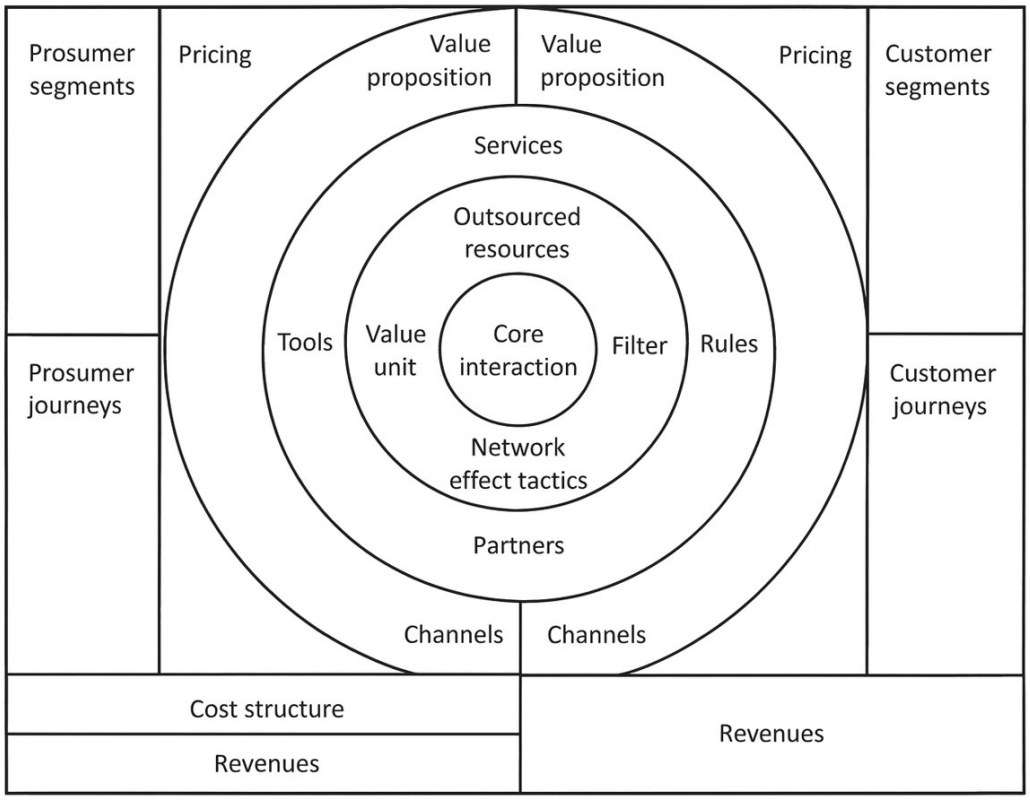


**Figure 6. Platfrom BMC (Taipale-Erävala et al. 2020)**

### 2.3.1 Different type of platform business models

Despite the perspective in the traditional platform literature, where the business model of a platform firm is primarily associated with generating positive network interactions and addressing the chicken-and-egg problem, uncertainty remains regarding the categorization of platform business models (Abeb Alghani, 2025). Thus, rather than being understood as one homogeneous business model, online marketplaces should be viewed as heterogeneous, with different forms exhibiting different strategic orientations (Stockdale & Standing, 2002)

Täuscher & Laudien (2018) develop an empirically grounded taxonomy of platform-based marketplace business models by searching what are the business model types of

marketplaces, and what are their value creation, delivery and capture mechanisms. Drawing on data from 100 start-ups classified as digital marketplaces, the authors apply cluster analysis to identify six distinct types of business models.

Täuscher & Laudien (2018) highlight that marketplace business models differ significantly in their value propositions, activities, revenue structures, and participant roles. Referring to “the platform business model” as a single category is misleading, as strategic, technological, and managerial implications vary across types. Moreover, the research highlights the dynamic and context-dependent nature of these models, shaped by geography, regulation, and temporal trends (Täuscher & Laudien, 2018). To identify different business model types, Täuscher and Laudien (2018) compiled a table of key aspects relevant to platform-based economies, presented in Table 3. The table categorizes business model elements into the dimensions of value creation, value delivery, and value capture.

Within the value creation dimension, the framework emphasizes the platform’s technological foundation—whether web-based or mobile—and identifies key value-generating activities such as data services, community building, and content creation or curation. It also includes mechanisms of price discovery, ranging from fixed platform-set prices to those determined by market actors through auctions or negotiation, as well as trust-building systems such as user reviews, platform-administered ratings, or the absence of formal evaluation mechanisms. The value delivery dimension concerns how offerings are structured and delivered to users. It distinguishes three types of value propositions—efficiency and cost advantages, emotional benefits tied to user experience or brand image, and social value based on interaction and belonging. Delivery is further characterized by the nature of the transaction (product or service; digital or offline), industry scope (vertical vs. horizontal markets), and participant type (C2C, B2C, or B2B). Finally, the framework considers the geographic scope of operations, differentiating between local, regional, and global platforms. (Täuscher & Laudien, 2018)

In this study, we employ—for the case companies—an analogous table that is formatted somewhat differently but contains exactly the same components (see Table 4.)

**Table 3. Attributes of platform Business Models (Täuscher & Laudien, 2018)**

| | Busines model attributes | Specifications | | | | |
|---|---|---|---|---|---|---|
| Value creation | Platform type | Web-based platform | Mobile app | | | |
| | Key activity | Data services | Community building | Content creation | | |
| | Price discovery | Fixed prices | Set by sellers | Set by buyers | auction | negotiation |
| | Review system | User reviews | Emotional value | None | | |
| Value delivery | Key value proposition | Price/cost/effiency | Emotional value | Social value | | |
| | Transaction content | Product | Service | | | |
| | Transaction type | Digital | Offline | | | |
| | Industry scope | Vertical | Horizontal | | | |
| | Marketplace participants | C2C | B2C | B2B | | |
| | Geographic scope | Global | Regional | Local | | |
| Value capture | Key revenue stream | Comissions | Subscriptions | Advertising | Service sales | |
| | Pricing mechanism | Fixed pricing | Market pricing | Differentiated pricing | | |
| | Price discrimination | Feature based | Location based | Quantity based | None/other | |
| | Revenue source | Seller | Buyer | Third party | None/other | |

**Table 4. Key business model attributes of platfroms (Täuscher & Laudien, 2017)**

| **Business model attributes** | **Specifications** | | | | |
|---|---|---|---|---|---|
| | ***Customer dimension*** | | | | |
| **Key value proposition** | Price/cost/effiency | Emotional value | Social value | | |
| **Transaction content** | Product | Service | | | |
| **Transaction type** | Digital | Offline | | | |
| **Industry scope** | Vertical | Horizontal | | | |
| **Marketplace participants** | C2C | B2C | B2B | | |
| **Geographic scope** | Global | Regional | Local | | |
| | ***Value creation dimension*** | | | | |
| **Platform type** | Pure web-based platform | Mobile app | | | |
| **Key activity** | Data services | Community building | Content creation | | |
| **Price discovery** | Fixed | Set by sellers | Set by buyers | Negotiation | Auction |
| **Review system** | User reviews | Review by platform | None | | |
| | ***Value capture dimension*** | | | | |
| **Key revenue stream** | Comissions | Subscriptions | Advertising | Service sales | |
| **Pricing mechanism** | Fixed pricing | Market pricing | None/other | | |
| **Price discrimination** | Feature based | Location based | Quantity based | None/other | |
| **Revenue source** | Seller | Buyer | Third party | None/other | |

The six different business model types or clusters that were identified by Täuscher & Laudien (2018) can be seen in Table 5. These are (1) efficient product transactions, (2) digital product communities, (3) product aficionados, (4) on-demand offline services, (5) online services, and (6) peer-to-peer offline services. The first type, labelled efficient product transactions, refers to marketplaces that primarily facilitate the exchange of physical goods, typically between consumers or between businesses. Their main value proposition lies in efficiency and cost advantages, achieved through standardized processes and access to a broad variety of products. Revenue models are commonly based on commissions or subscriptions charged to the seller side. A second type, digital product communities, centers on the exchange of digital products such as e-books, music, or software, while simultaneously fostering communities of like-minded individuals. In this model, social and community value is as important as economic exchange, and commissions represent the dominant revenue stream. The third type, product aficionados, also deals with physical goods but differs from efficient product transactions in its focus on niche categories and communities of enthusiasts. These platforms deliver emotional and social value by building identity and engagement around particular product types, such as art, collectibles, or design goods, and they typically monetize through commissions or subscriptions on the seller side. The fourth type, on-demand offline services, involves marketplaces that connect businesses with consumers for services that are delivered in the physical world, such as transportation, beauty, or repair services. These models emphasize efficiency and convenience, often enabled through mobile applications, and serve as aggregators or booking channels that help businesses manage capacity more effectively. Revenue is generally captured through commissions from the supplier side. A fifth type, online services, refers to marketplaces that provide services directly through digital channels, such as online tutoring, freelance work, or professional consulting. These platforms are characterized by fixed pricing structures that tend to commodify services, and they create value by offering efficient access, new income opportunities, and in some cases active online communities. Finally, the sixth type, peer-to-peer offline services, represents platforms that enable individuals to provide services or share resources directly

with other individuals. Examples include accommodation sharing, car sharing, and personal services such as pet sitting. These marketplaces open up novel income opportunities and rely heavily on review systems to establish trust between participants. They typically employ commission-based revenue models, with costs most often borne by sellers.

In this thesis in the findings section, in addition to BM changes, we examine whether the case companies have changed from the business model type to another as defined by Täuscher and Lauden (2018).

**Table 5. Platfrom Business Model types (Täuscher & Laudien, 2018)**

Summary of business model types

| Business model type | Platform type | Platform participants | Value proposition | Transaction type & good | Revenue model | Example |
|---|---|---|---|---|---|---|
| **Efficient product transactions** | Web-based platform | C2C, B2B | Large product variety | Physical products | Commission fee, subscription fee; mostly supply side | *Beepi* (eBay for used cars) |
| **Digital product community** | Web-based platform | C2C | Being part of a primary non-commercial community | Digital products; physical products | Commission fee; supply side, demand side | *Sellfy* (connecting 'neighbors' to share durable goods with each other) |
| **Product aficionados** | Web-based & mobile platform | B2C, C2C | Exchanging knowledge about niche products with community of like-minded people | Physical products | Commission fee; supply side | *HobbyDB* (Knowledge database and transaction platform for collectibles) |
| **On-demand offline services** | Web-based & mobile platform | B2C | Large service variety in a novel form | Offline services | Commission fee, subscription fee; mostly supply side | *StyleSeat* (connecting beauty salons & consumers) |
| **Online services** | Web-based platform | C2C, B2C | Novel online services with social networking character | Online services | Commission fee, subscription fee; mostly supply side | *iTalki* (connecting language learners with teachers for 1-on-1 online lessons) |
| **Peer-to-peer offline services** | Web-based & mobile platform | C2C | Novel services with community feeling within & outside digital platform | Offline services | Commission fee (demand & supply side), subscription fee (third parties) | *Airbnb* (connecting people to list, discover, and book private accommodations) |

With regard to the research questions of this study, the aspects proposed by Täuscher and Laudien (2018 P. 327-328) for further investigation are of particular relevance:

Objectively evaluating business models' key activities and resources was rather challenging, as information on where marketplaces invest their resources and how they

prioritize their activities is scarce. For instance, most marketplaces combine a variety of activities for creating trust among participants, including active community management, curation of listings, a conflict resolution program, or a money-back guarantee. While these mechanisms contribute to a marketplace's value creation, the methodological approach does not allow verifying their relevance to a specific business model. To overcome this limitation, future research could further conduct interviews with decision makers of the complete set of marketplaces. Also, the approach did not allow capturing whether the marketplaces had changed their BM at some point. While BM innovation is outside the scope of this study, future research could take a longitudinal perspective to investigate such BM changes and explore potential change patterns throughout a firm's or market's lifecycle.

### 2.3.2 Longitudinal research on platform BM changes

Zhao et al. (2019) conducted a longitudinal multiple-case study of twelve firms in China's Online Group Buying industry (2010–2013), tracking 329 business model changes through interviews and secondary data. Four patterns of evolution was detected: simple innovation (isolated, unsustainable changes), complex innovation (interdependent, ongoing innovations), simple imitation (easy copying with short-term gains), and complex imitation (adaptive copying integrated into new activity systems) (Zhao et al., 2019). The study shows that firms relying solely on simple innovation or imitation failed, while survivors often used complex imitation. Market leaders combined both innovation and imitation to build complex, interconnected business models, which proved decisive for long-term survival and competitive advantage. Schmidt et al. (2020) traces the platform About You (AY) from 2014–2019 through a longitudinal case study using press releases, media articles, blogs, and over 14,000 tweets. The authors highlight three levers of evolution: guarded inception (partner support), activating force multipliers (leveraging one side to drive others), and building on others (using external knowledge and networks).

They conclude that entrants grow disruptive platforms not only by innovating internally but by strategically reconfiguring relationships with multiple platform sides over time. Şimşek et al., 2022 did a longitudinal case study of a global tech firm to trace its shift from a traditional product-centric model to a cloud-based, multi-sided platform between 2016 and 2020. Drawing on interviews and secondary data, the authors analyze how the firm reconfigured its value proposition, revenue logic, and processes while facing both resistance and enabling forces. They find that successful transformation required organizational separation to handle the new platform business, the development of new capabilities and skills, and strong transformational leadership. A dedicated strategic management unit providing continuous market intelligence proved crucial in navigating complexity. Overall, the study shows that established firms can evolve into platform models, but only by strategically overcoming legacy constraints and systematically orchestrating internal and external drivers of change. Soska and Christin (2015) show through a two-and-a-half-year measurement of darknet markets that despite shutdowns and scams, the ecosystem proved resilient, with stable drug sales, a long-tail vendor structure, increasing security practices, and rapid rebounds in overall volume. Remane et al., 2016 analyzes 524 U.S. mobility startups founded between 2006 and 2015 using CrunchBase data, classifying them by business model type with the Weill et al. (2005) framework. Through a trend-based longitudinal design, the authors show significant shifts: the share of intellectual landlords (e.g., software providers) declined, while contractors (e.g., app-based limousine services) and physical brokers (e.g., peer-to-peer car sharing) grew substantially. These changes reflect how technological advances such as mobile internet and smart products enabled new digital models centered on platforms, co-creation, and ecosystems, with brokers increasingly owning the primary customer relationship. The study concludes that startups in the mobility sector are moving away from purely digital service provision toward more asset- and interaction-based platform models, indicating a sector-wide digital transformation with disruptive implications for incumbents Shaffer et al. (2021) did a longitudinal case study tracing how a firm evolved its linear model into a multi-sided platform over a 16-year span, showing the stepwise changes across BM components.

# 3 Methodology

This chapter will examine the methodological approaches taken in this study. The initial subchapter will outline the key characteristics of academic research, present the selected research methodology, and explain the rationale behind the chosen approach for the study. Following this, the case companies are briefly presented, followed by a discussion of the criteria for their selection and the limitations related to the use of the data collected from them. The Data Collection section outlines how the data were gathered and explains the rationale behind the methodological choices. The data analysis section examines the procedures used to analyze the data.

## 3.1 Research approach

The methodological choices in this study will be explained using the research onion framework developed by Saunders et al. (2023). This framework provides a structured approach to outlining research design by moving through successive layers: from philosophical assumptions to data collection techniques. Below, each layer of the research onion is identified as it applies to this study, followed by a detailed justification for its selection and relevance to the research objectives.

**Table 6. Adopted research choices from Saunders et al. (2023)**

| Research element | Approach Adopted |
|---|---|
| Research Philosophy | Interpretivism |
| Research Approach | Deductive |
| Research Strategy | Case study |
| Methodological Choice | Mono Method Qualitative |
| Time Horizon | Longitudinal |
| Data Collection | Semi-structured interviews |
| Data Analysis | Thematic analysis |

This thesis adopts an interpretivist research philosophy, as the data collected relies mainly on semi-structured interviews with company representatives, which are inherently subjective in nature. The findings will emerge through the researcher's interpretation of the interviewees' answers, particularly their explanations of past decisions, experiences, and perceived outcomes. Interpretivism is therefore appropriate, as it allows for a contextual and meaning-oriented understanding. This study does not involve the rigorous testing of existing theories through hypotheses. However, employing established frameworks, such as the Business Model Canvas, positions the study within a deductive research approach. Mono-method qualitative methodology is being used in this study as data is mainly collected through semi-structured interviews . Going back to the research question 1, quantitative methods could be justified. However, in reality the representatives of the companies interviewed do not possess an equal level of understanding regarding the concept of the business model, its theoretical foundations, or the terminology it entails. This necessitates a qualitative interaction between the researcher and the participants in order to bridge this gap and ensure meaningful interpretation of the data. Thus, conducting large-scale surveys that would produce quantitative data would involve

significant risks, particularly the risk that respondents may not fully understand what they are being asked to answer. The “what lead to change” part of the question cannot simply be answered in any other way than qualitative.

A multiple case study strategy is appropriate for this research as it enables a rich, in-depth, and comparative understanding of how platform-based SMEs adjust their business models over time, while remaining consistent with the qualitative, interpretivist, and inductive design of the study. The time horizon is longitudinal as the study examines the changes in business model over time. According to Saunders et al. (2023), a longitudinal design is appropriate when the aim is to study change and development, especially in organizational research where understanding the trajectory of strategic decisions is critical. The research investigates how and why business models change within—questions that require open-ended, flexible dialogue rather than fixed-response formats, thus semi-structured interviews are appropriate.

## 3.2 Case Companies

Case companies were selected based on the following criteria: they had to be Finnish small or medium-sized enterprises (SMEs) operating an online platform that facilitates interactions between at least two parties and have been in operation for over five years. All three case companies met these requirements. The firms were identified through a listing of Finnish platform businesses engaged in labor intermediation. As a result, all of the selected companies intermediate labor in one way or another, even though this was not an explicit criterion for inclusion. The source of this listing is not disclosed in order to protect the anonymity of the companies. The intention was to include three firms in the study, and these three happened to be the first with which contact was successfully established. No additional selection procedures were applied beyond these criteria. The case companies are referred as company A, B and C.

The companies' turnover ranges from several hundred thousand euros to more than ten million, with Company B representing the smallest and Company A the largest in terms of revenue. Company A is also the oldest of the firms, whereas Company B is the youngest. Companies A and B operate their platforms through mobile applications, whereas Company C's platform functions as a traditional browser-based solution. All of the case companies operate not only in Finland but also internationally to varying extent. Companies A and B can be regarded as technology firms in the traditional sense, as they maintain in-house IT functions and employ software developers, whereas Company C has entirely outsourced its IT activities.

**Table 7. Main characteristics of the case companies**

| | **Company A** | **Company B** | **Company C** |
|---|---|---|---|
| **Turnover €** | Over 10 million | Over 500 thousand | Circa million |
| **Age** | Over 15 years | Over 5 years | Over 10 years |
| **Operations abroad** | Yes | Yes | Ýes |
| **In-house IT** | Yes | Yes | No |
| **Started as a platform** | No | Yes | No |

In the company-specific sections of the Findings chapter, a broader overview of each firm is provided at the outset. This is done in order to establish a comprehensive understanding and to avoid the need to return to the Methodology section merely to recall the nature of the companies under study.

## 3.3 Data collection

Mainly primary data were used in this study. The data were collected through interviews with the executives and founders of three platform-based SMEs. To ensure that the companies would agree to participate in the interviews and that their representatives would feel comfortable responding openly, all companies have been anonymized. Given the small size of the Finnish market and the limited number of comparable platform-based firms, detailed information about their business operations and financial figures is not disclosed. This is to prevent the companies from being easily identified, which would violate the anonymity promised to the interviewees. Only approximate and indicative figures and operational information about the companies and industry they are working in were employed.

Primary data was gathered trough semi-structured interviews. The interviews were conducted in May–June 2025. Interview of case company C was done via remote video meeting, and company A and B were interviewed via normal phone call. The interviews were conducted in the interviewees' native language, Finnish. This was done to ensure that the interviews would proceed as naturally as possible and that they could respond to the questions to the best of their ability without difficulties in expressing themselves. Each interview took a different form and progressed in its own way. This approach was adopted to avoid formal rigidity and to ensure that the interviewees were able to speak as freely and extensively as possible. As a formal tool, the interviewer had open both Täucher's business model attribute table and the Business Model Canvas. These were used to guide the questions. Research question 2 was presented separately in different ways. Notes were taken during the interviews in a Word document. These consisted primarily of direct quotations from the respondents. The interviews were also recorded. Preparation for the interviews involved reviewing all publicly available information found online, thus clear business model changes identified through these public sources were not discussed during the interviews.

**Table 8. Detailed secondary datasources**

| Secondary data source | Amount |
|---|---|
| News articles | 57 |
| Company websites | 4 |
| Company social media pages | 14 |
| Public financials | 3 |
| Platforms tested by the writer | 3 |

In addition to primary data, information on the companies was obtained also from secondary data sources. These included publicly available financial information, companies' websites and news articles about the companies. Furthermore, the author downloaded the mobile applications of Companies A and B to familiarize himself with the platforms and registered as a user of Company C's platform for the same reason.

## 3.4 Data analysis

The analysis began with a thorough review of the written notes and audio recordings. The notes were then refined and supplemented with additional details that emerged from the recordings but had not originally been documented. As spoken language rarely corresponds directly to comprehensible written text, the participants' quotations were edited into a more readable form while fully preserving their substantive content. Thereafter, the notes were coded to under different headings by topic. This was done in a data-driven manner. Information related to business model changes was organized according to the components of the Business Model Canvas. Separate headings were also created for research question 2 and for a section entitled Other Remarks. The latter contained issues raised during the interviews that did not directly address the research questions but were nonetheless relevant and noteworthy in relation to the overall study. While going trough the interviews, for each company it was recorded which elements of

Täucher's attribute table applied and at in which segments of the Business Model Canvas changes had occurred. Direct citations used in this thesis were translated to English.

Ensuring anonymity was intended to guarantee that the respondents would answer as honestly and openly as possible, without fear that their statements could be traced back to them personally. The interviews were audio-recorded in their entirety to preserve the accuracy of the participants' responses and to provide a reliable basis for subsequent analysis.

# 4 Findings

This chapter presents the findings of the study. It is structured into three case company subchapters and a concluding subchapter summarizing them. The case company chapters are structured in a similar manner. Each begins with a general overview of the company. This is followed by the subsection 'Changes in the Business Model', which naturally discusses the modifications in the company's business model. This subsection addresses research question 1. The next subsection, 'Reasons for the Changes', responds to research question 2. Finally, each case company chapter concludes with the section 'Other Remarks', which presents additional insights raised during the interviews that are not directly related to the research questions but are nevertheless relevant and of interest to the overall study.

## 4.1 Case Company A

Company A focuses on a specific type of transportation of goods. it is over 15 years old, and its current turnover has been over 10 million euros, working in several different countries. The company started off without intention of being a platform company, nor without intentions of international expansion. According to the CEO the idea of going abroad emerged over time. The CEO states the following: "For a long time, we operated as a traditional service company. We handled transportation, and there was nothing particularly technological about it. When the company was founded, we had no intention of running a platform. It was only when we started thinking about how to scale our operations in Finland and later internationally that the idea emerged. As a result of strategic work, we ended up adopting a platform-based solution. The nature of the work was fragmented, with many short assignments available across the country and later abroad. We had to figure out how to organize this in a sensible way, and solving this challenge pushed us toward the current operating model. At the time we began implementing this, the term "platform economy" wasn't even widely used yet." Thus, turning into platform business happened via solving the workforce problem and as a solution to achieving scalability. The company is rather atypical within the platform economy landscape, which

highlights its character as a more traditional business. External funding was only sought in recent years; prior to that, growth was financed through the company's own revenues and debt that private individuals were able to assume. "Boot strapping was our thing for long time", the CEO says.

**Table 9. Case company A's current business model attributes indicated with colour and changes indicated with arrows (after Täuscher & Laudien, 2017).**

| Business model attributes | Specifications of company A | | | | |
|---|---|---|---|---|---|
| ***Customer dimension*** | | | | | |
| **Key value proposition** | Price/cost/efficiency | Emotional value | Social value | | |
| **Transaction content** | Product | Service | | | |
| **Transaction type** | Digital | Offline | | | |
| **Industry scope** | Vertical | Horizontal | | | |
| **Marketplace participants** | C2C | B2C | B2B | | |
| **Geographic scope** | Global | Regional | Local | | |
| ***Value creation dimension*** | | | | | |
| **Platform type** | Pure web-based platform | Mobile app | | | |
| **Key activity** | Data services | Community building | Content creation | | |
| **Price discovery** | Fixed | Set by sellers | Set by buyers | Negotiation | Auction |
| **Review system** | User reviews | Review by platform | None | | |
| ***Value capture dimension*** | | | | | |
| **Key revenue stream** | Comissions | Subscriptions | Advertising | Service sales | |
| **Pricing mechanism** | Fixed pricing | Market pricing | Differentiated pricing | | |
| **Price discrimination** | Feature based | Location based | Quantity based | None/other | |
| **Revenue source** | Seller | Buyer | Third party | None/other | |

In 2017 the company still had transport operators under a payroll. In 2018 the first freelancers were used and the company used internal tool for managing the transportations - the couriers and the customers. A year later the company opened a public marketplace for the couriers and the transportation service buyers, which has had have many modifications after the launch. In 2022, the company commenced first operations abroad. “Traditional service providers compete directly with the company. We did not invent this service; it has always existed. However, the company was the first in Finland to introduce a platform-based model in this sector. Over time, others have entered the market, and several new players have emerged in the past decade”, the founder CEO says.

### 4.1.1 Changes in business model

The BM of the company have changed thoroughly. Starting from the customer segments, the customers are referred here as the paying customers, meaning the buyers on the platform. The company has still many of the same type of customers locally in Finland that it had when it started but their numbers have significantly risen. The customers are limited to a specific industry, and there have been no major changes in this industry, according to the CEO. On the platform these are b2c customers (company buyers and customer couriers) and from the company perspective b2b customers. The company has started C-to-C deliveries, but from a cash flow perspective, this has not been a significant new customer segment. “The customer base has expanded, but the majority of revenue still comes from the same B2B operation”, the CEO says. The most significant change in customers has been regional, as the company has started operating in several countries abroad. However, these companies abroad still operate within the same industry.

Value proposition has not changed, as the company has been offering the bundle of price and speed from the start and still does so. The CEO sees that main service has not changed, only the ways to deliver it has. “Different customers value different things. For some, speed and inventory turnover are the most important, while for others affordability matters more. The right speed at a reasonable price—that is the value we deliver”,

the CEO states. Customer relations have changed in the sense that customer service and its operations have evolved. The channels have evolved, as the company's platform has established a new means of delivering and supporting its offering. Looking into revenue streams, the company states that pricing has evolved significantly over time and will probably continue to do so in the future. Increased understanding of what customers value has had a major impact on pricing decisions, says the CEO.
They use the term "dynamic pricing," which adjusts based on speed and urgency. The price depends on where the order is placed and how urgent it is. For example, ordering in the evening might cost very differently compared to during peak hours the next day.

Additionally, the more a customer uses the service, the cheaper it becomes. Cost structure has also changed as the company does not have couriers on their payroll anymore. The most predominant change has happened in key activities. At present the company's key activity is data collection and its usage which facilitates high degree of automation. "We have integrated different stages and levels that make this possible. We utilize AI and have the ability to structurize data and have it in a usable form. The ready-made package can be easily introduced to a new country. Once you put in X number of drivers and X number of routes, the operation starts running, and this can be done with relatively small local organization. This is a generic matter that is not specifically related to the transport service", the CEO explains. The key resources link to the key activities. The CEO sees the inhouse coders and matchmaking technology as their key resources. In the background, there is proprietary code, in-house research, and their own AI development. The own data structure, which enables the use of the data to the matchmaking is included in this section. The technological dimensions of the firm's key activities and resources have undergone a fundamental transformation compared to the original business model. In its early stages, the company was not strongly oriented toward information technology. Key partners have also changed as the company uses bought technological expertise when needed. Even inhouse coding is at the core of the company, outsorcing is done in situations where sufficient expertise is not available in-house.

### 4.1.2 Reasons for the changes

The transition to a platform-based model was driven by two key challenges. The first concerned securing an adequate workforce for irregular deliveries across diverse locations at a reasonable cost. The second challenge related to enabling the business to scale efficiently. The changes in business model were done due to ad hoc needs of delivering the value proposition, and to make current business better. The company's intention was not to transform into a platform economy; rather, the underlying business concept remained unchanged from the perspective of the service itself. "We were not originally a platform company, nor are we ultimately a purely platform-based business. It has simply been an effective way to address the labor challenge and achieve scalability. For certain customer needs, however, the platform model is a good fit", the CEO reflects.

The CEO sees that much of the changes in business model and everyday finetuning of operations are linked to the chicken-and-egg problem. "It has certainly been a challenge. At present, when looking at Finland, the situation can be managed well. The volumes are significant at both ends. We receive more couriers than we are able to provide assignments for." Although the issue has been resolved in Finland, it continues to present challenges in newly entered markets. "When considering the new markets we have entered and those we plan to enter, the biggest challenge is to ensure that the number of couriers and the number of assignments remain in balance. If there are too few assignments, couriers will not stay on such a platform. If there are too many assignments relative to the number of couriers, paying customers will not remain with the service if alternative options are available. This is, of course, a truly critical issue in a business of this kind."

The CEO highlights that the COVID-19 crisis represented a pivotal moment, marking the point at which substantial changes to the business model were seriously initiated. "The pandemic was a turning point. At that time, operations slowed down dramatically, and daily activities came almost to a halt. It appeared as though our work would come to a complete stop and the company's very survival was at stake. This forced us to consider how we could stay alive. That was when the real strategy work began, and we started to

ask where the business opportunities lay. At that point, we shifted our strategic direction, and the impact has been evident. Since then, we have experienced strong growth", CEO explains. In retrospect, the entrepreneur acknowledges that strategic work should have been undertaken much earlier. Expertise should also have been sought externally, rather than attempting to solve all problems independently. "We could have saved many years had we initiated strategic work already in the early 2010s," he notes. At present, the company seeks to ensure that sufficient time and adequate expertise are dedicated to strategic development. The latter is particularly evident in the composition of the board members.

### 4.1.3 Other remarks

The company A has shown interesting development in both vertical and horizontal integration amid its platform. The company has done several business acquisitions. "There have been two types of acquisitions. On the one hand, the company has acquired technological expertise that is needed both now and in the future. On the other hand, acquisitions have been made to increase volume and expand the business. An example of this is the acquisition of logistics operations from one major company in this industry, which brought in a large number of in-house drivers. Similar acquisitions are likely to follow in the future. The company requires expertise to further develop its platform, but it also needs volume — assignments and couriers", CEO explains. The firm has also subsidiary that has couriers on payroll. By logistics acquisitions company A has done horizontal integration by getting larger market share of the logistics in the industry. With the courier subsidiaries and the workforce of the logistics companies, it has gained vertical integration inside its own platform. This relates to the notion that the CEO does not see the company as a pure platform firm. "The future is not solely about the platform economy. We are a logistics company that combines freelancers, employees under contract, and our own transport infrastructure. This is the direction in which we are heading. The customer ordering the delivery does not necessarily know which of these means will be used to carry out the transport", the CEO says.

## 4.2 Case Company B

Case company B was founded over ten years ago but stayed as a dormant company for several years. The company's operations truly took off over five years ago. At present, the company's turnover is in the range of six hundred thousand euros. From the start the firm aimed to be a platform company. The CEO states that idea was to create a mobile game for data collection. Later on, the focus changed to specific micro tasks.

**Table 10. Case company B's current business model attributes indicated with colour and changes indicated with arrows (after Täuscher & Laudien, 2017).**

| Business model attributes | Specifications of company B | | | | |
|---|---|---|---|---|---|
| ***Customer dimension*** | | | | | |
| **Key value proposition** | Price/cost/efficiency | Emotional value | Social value | | |
| **Transaction content** | Product | Service | | | |
| **Transaction type** | Digital | Offline | | | |
| **Industry scope** | Vertical | Horizontal | | | |
| **Marketplace participants** | C2C | B2C | B2B | | |
| **Geographic scope** | Global | Regional | Local | | |
| ***Value creation dimension*** | | | | | |
| **Platform type** | Pure web-based platform | Mobile app | | | |
| **Key activity** | Data services | Community building | Content creation | | |
| **Price discovery** | Fixed | Set by sellers | Set by buyers | Negotiation | Auction |
| **Review system** | User reviews | Review by platform | None | | |
| ***Value capture dimension*** | | | | | |
| **Key revenue stream** | Comissions | Subscriptions | Advertising | Service sales | |
| **Pricing mechanism** | Fixed pricing | Market pricing | Differentiated pricing | | |
| **Price discrimination** | Feature based | Location based | Quantity based | None/other | |
| **Revenue source** | Seller | Buyer | Third party | None/other | |

The company differs significantly from many other platform businesses in that the purchasers of microtasks are not actively present on the platform. Instead, the company negotiates projects directly with these buyers and charges them a lump sum, which includes the remuneration allocated to microtasks and subsequently distributed by the company to platform users. “Our company is responsible for designing the platform tasks, providing user support, and managing the overall operations. We differ from traditional marketplace platforms in that our role is not limited to brokering work; rather, we remain strongly present and actively involved on the platform on behalf of the paying customer. Currently the company has started its operations abroad, working in two countries on a small scale. The CEO says that main objective in the future is to expand abroad.

### 4.2.1 Changes in business model

The company’s customer segments have remained entirely the same. original idea was that specific public sector organizations would serve as the primary clients, and this continues to be the case, even though the service performed on the platform itself has changed. Geographically, the customer base has expanded, as the same types of public sector organizations are now clients in two foreign countries as well. According to the CEO, the company intends to increase its international presence further in the coming years. He notes that the focus is on Western countries, where operating conditions are more favorable. Other initiatives are also being planned for the future. “In recent years, we have also started to consider private-sector firms. This is still a work in progress, and we are thinking about what we could offer them. So far, however, we have not come up with any real breakthrough”, the founder says. C2C activities have likewise been contemplated for the future. Considering the users of the platform (the people who do the microtasks), this segment has changed. The current primary user group consists mainly of

teenagers aged 13 to 19. This development was not part of the original plan, as the initial idea targeted adults due to earlier data collection requiring a driving license. Consequently, the median age of users has shifted from 24 to 15.

The company's value proposition has changed as the company has started to focus on microtasks instead of data collection. The company specializes now in a very certain type of microtask that the users of the platform are doing. The core offering is efficiency: the platform makes it possible to mobilize a large number of contributors within a short time frame, which provides significant added value for paying customers. Instead of investing in the lengthy and costly process of hiring employees, organizations can delegate tasks directly through the platform and receive rapid results. In a sense, this has not changed from the data collection. What has changed is the problems that the company and its platform are solving for the paying customers. The CEO himself considers the shift toward these specific microtasks to be the most significant change in the company's entire business model. "We realized that if we do many different things, we compete with different companies in different markets with the same product, and in that way, we are able to compete on price." Relating to the possibilities of private sector B2B and C2C customers new offerings are constantly under thought. "There will certainly be new things. We are constantly receptive to ideas and thinking about what we could offer." CEO did not reflect any changes in the customer relations. Channels have also chance in the sense that the public sector organizations now also promote the platform and the microtasks. Key partners have not changed.

Projects are billed on a case-by-case basis, with pricing determined by the estimated amount of in-house work required for each assignment. This has remained the same. While the company maintains list prices for certain services, the final fee is always set internally. "We bill on a project-by-project basis. We calculate how much of our own work goes into each project, and the pricing is based on that", CEO says. The CEO noted that in the early years the share of the company's own work was underestimated, which led to services being sold at too low a price. Now the project prices have been set to

higher standard. The method of revenue recognition has remained the same, but the sources of income have shifted. According to the CEO, 85 percent of the company's current turnover now derives from new microtasks. The cost structure of the business model has not changed, consisting of personnel expenses, project meetings, geodata work, quality management, payment systems, and the rewards paid to microtask contributors on the platform. The rewards can also be regarded as a pass-through item, since they are ultimately paid by the microtask buyers.

With key activities the CEO mentioned creating communities, use of geospatial data, and, perhaps unexpectedly, communication. He noted that communication is something that has evolved significantly and is at the core of their success and operations. More precisely, he was referring to communication with the platform's users and with public-sector organizations. An important part of this is also communication with the media and gaining visibility through media coverage, which the company has managed successfully. The company does not place significant value on technical expertise, at least not in comparison to its competitors. ”We have our own coders for the data side. That is, in a way, a side activity—we are like any other software development company in that regard, and we do not have any special expertise there. It is fairly basic. The other aspects are the ones that make us different. Communication is perhaps the most important aspect. It is difficult to find people who would have the same know-how as our team in this area.” The CEO considers the communication aspect to have changed within key activity, as the staff's skills in this area have developed over time through practical experience. Its importance was also not initially understood at the time of the company's founding. The company regards its personnel as a key resource, as they have accumulated unique skills essential for running the business.

### 4.2.2 Reasons for the changes

The most significant change in the business model—namely the shift to microtasks—was the result of listening to customers. As the CEO explains: “This idea came from interviews

with the public organizations. By listening to customers, we came up with a new service." According to the CEO, all the other changes in the company's business model have emerged through operational practice and experimentation, trial and error, developing almost naturally.

The CEO does not consider the changes in the business model to have been driven by the chicken-and-egg problem. He explains: "Users usually join once we have managed to attract a B2B customer. This is necessary, because the budget comes from them, and only then do we have something to distribute to users. In some foreign markets it may initially be difficult to attract users, but usually this is not a problem.' He further notes: 'From the user's perspective, the fewer users there are, the better, since it increases one's chances of earning the available tasks and rewards. In this sense, network interaction does not apply to us; it is not a case where the more users there are, the faster the user base grows." As the supply side of the tasks is set and limited, a growing number of users compared the amount of tasks available would be harmful for the platform. "If we know that a lot of people are already going to join a project, we don't market it much. We actually don't want there to be too many users", the CEO explains.

### 4.2.3 Other remarks

In the interview, two other topics arose: scalability problems and covid-19 crisis. Scalability presents both opportunities and limitations for Company B. The CEO emphasizes that B2B sales always require negotiations with paying customers, meaning that selling the platform service cannot be automated, which naturally slows down growth. Since the platform primarily targets public sector organizations, the pool of potential clients is relatively limited compared to consumer-oriented platforms. The CEO points out that this can also be an advantage: globally, there are several tens of thousands of sufficiently large public organizations in markets where the company could expand, which provides a clear roadmap for international growth.

The COVID-19 pandemic is described as a major positive turning point for the company. The CEO reflects: “Before, we would have had to travel to a small town to negotiate a deal worth only a few thousand euros, which would not have made sense. Such deals could not have been sold. Now, we can close affordable deals without ever visiting customers in person. We haven’t even met face-to-face with the B2B customer we have sold the most to, even though their office is just a few hundred meters from ours. Without the pandemic, remote meetings would eventually have come, but not at the same speed.” Remote communication tools, particularly video conferencing, enabled the company to scale its operations more efficiently and cost-effectively than before.

Another noteworthy aspect concerns pricing strategy. In locations where the number of platform users is initially lower, prices may be set at a higher level, though always within the budget framework provided by the paying customer. This form of indirect subsidization allows the company to balance demand and supply while maintaining project feasibility.

Finally, the CEO highlights that if the company were to extend its activities to private-sector firms, the scalability potential would increase significantly due to the much larger number of possible clients compared to the public sector. For now, however, the company remains firmly rooted in the B2B domain.

## 4.3 Case Company C

Case company C has been operating for over ten years, and its current turnover is approaching one million euros. The company operates primarily in Finland, but its ambition is to expand abroad. Its core business involves providing interim managers to clients in need, and for this purpose it has established a platform. The platform differs from traditional job intermediation in that the worker (or freelancer, in this case) and the client do not meet directly on the platform. Instead, there are intermediaries—whom the CEO refers to as “partners”—who facilitate the provision of interim

managers. Job postings are made visible to all users. Upon registering on the platform, users indicate the types of tasks they are interested in. The platform does not utilize complex technology or artificial intelligence in the matchmaking, and the entire technical function has been outsourced. When a position becomes available, candidates apply through an application form that includes supplementary questions and requires appropriate references for the position in question. Once the form is completed, the partner reviews the posting.

**Table 11. Case company C's current business model attributes indicated with colour and changes indicated with arrows (after Täuscher & Laudien, 2017).**

| Business model attributes | Specifications of company C | | | | |
|---|---|---|---|---|---|
| ***Customer dimension*** | | | | | |
| **Key value proposition** | Price/cost/efficiency | Emotional value | Social value | | |
| **Transaction content** | Product | Service | | | |
| **Transaction type** | Digital | Offline | | | |
| **Industry scope** | Vertical | Horizontal | | | |
| **Marketplace participants** | C2C | B2C | B2B | | |
| **Geographic scope** | Global | Regional | Local | | |
| ***Value creation dimension*** | | | | | |
| **Platform type** | Pure web-based platform | Mobile app | | | |
| **Key activity** | Data services | Community building | Content creation | | |
| **Price discovery** | Fixed | Set by sellers | Set by buyers | Negotiation | Auction |
| **Review system** | User reviews | Review by platform | None | | |
| ***Value capture dimension*** | | | | | |
| **Key revenue stream** | Comissions | Subscriptions | Advertising | Service sales | |
| **Pricing mechanism** | Fixed pricing | Market pricing | Differentiated pricing | | |
| **Price discrimination** | Feature based | Location based | Quantity based | None/other | |
| **Revenue source** | Seller | Buyer | Third party | None/other | |

At this stage, the partner may screen candidates in several ways and ultimately present the client with candidates who passed the selection process. End clients are not present on the platform; rather, all interactions take place through the partners. At present, the company's revenue is derived entirely from the intermediation of interim managers, although the platform is utilized for this purpose. In other words, the company operates in the role of a partner on the platform, deriving its revenue from this position. "I'm running on two tracks. There's this intermediation business, and then there's the platform. At the moment, the company's revenue comes from the earlier business. The competitors in intermediation business don't have a platform. This intermediation business is the cash cow that generates cash flow. It should, however, bring in more revenue so that greater resources could be invested in the company's future core business—the platform," the CEO explains. Case company c has not been able to get the wanted partners (customers), they have only one partner that is a pilot project.

### 4.3.1 Changes in business model

A clear shift has occurred within the customer segments. Previously, the company provided interim managers directly to client firms through negotiations with them. In this model, the firms requiring interim managers are the paying customers. At present, the company seeks to target intermediary firms that supply interim managers to end clients. The CEO refers to these intermediary firms as "partners," yet in practice they constitute the company's primary paying customers in the future. By contrast, no qualitative change has taken place in the interim managers themselves as a target group of platform users.

A clear transformation has also taken place in the company's revenue streams. Whereas the company previously charged firms that directly engaged interim managers, the current objective is to generate revenue from intermediary firms that supply them. In the

earlier model, the company collected a margin on top of the interim manager's fee, with 15 percent being the industry standard. "The new aim is for the platform to capture a set small percentage of the intermediaries' margin. In addition, partners will pay a moderately priced monthly fee for using the platform, as well as an initial fee that includes training on its use," the CEO explains.

Interim managers as platform users are also expected to be charged a small nominal fee once the platform is launched internationally. This measure is designed to eliminate bots and fraudulent profiles. It has been under consideration that users could also be offered various additional services on the platform for a fee. However, this has not yet been implemented.

Value proposition has also changed along with the change of the customers. The company's current aim is to generate value for its partners rather than directly for end clients, even though this ultimately occurs through the partners. The company's revised value proposition emphasizes efficiency and enhanced access to a pool of qualified experts. In addition, it highlights the importance of trust as a central element of the platform's offering. Other aspects often business model canvas was not seen to be changed.

### 4.3.2 Reasons for the changes

Originally the company's idea was to expand in the traditional way—horizontally—like other interim staffing firms and headhunter companies. The CEO states the following: "When I founded the company, the idea was that it would expand internationally and that we would have operations and offices in different countries. During the pandemic, the plan was reshaped. When there is a client in Germany who is used to company X helping them find talent, they will call that same company again when they need support. That sparked the idea that instead of us taking the company to new markets to talk to potential clients, we would build a platform that local players could join—those who already have the trust of their clients. This is very much a business built on trust." In other

terms, this was the way to easily get inside the foreign markets. The even important reason for this this strategic change was due the scalability problems of the original idea. “The original and traditional margin model only scales through expanding operations. You have to invest in proportion to the company’s growth, because you need your own people on the payroll and offices et cetera. In this model, where partners are involved and their business grows, the scaling advantage is completely different. That’s why in the dream Excel sheet the numbers look really nice”, CEO says. The changes to revenue streams and revenue model inside it is ad hoc answer to achieve the scalability – achieving a proportional piece of the growth of the partner companies.

The changes to business model were not seen to be related to gaining positive network effects nor the CEO sees the chicken-and-egg problem to be a substantial problem for the company. She sees that there is no lack of the interim staff, thus the only problem is to get the buyers on the platform. “Getting partners on board is the real problem. In the current situation, there’s no shortage of talent, but there is a shortage of assignments. So the economic cycle affects the problem a lot”, she states. The company executive did acknowledge the presence of the chicken-and-egg problem and stated that she was aware of it. However, his account clearly conveyed the impression that, in his understanding, this does not constitute a network effect in which one side of the market would attract the other, thereby generating a positive network effect in both directions. His view is that only paying customers need to be brought onto the platform, whereas attracting interim managers would not pose a challenge.

### 4.3.3 Other remarks

The company C is evidently vertically integrated, as its main revenue source comes from its subsidiary working as a partner in the platform. According to the CEO, this will continue in the future even if several partners could be brought onto the platform. This means that the paying customers (partners) on the platform would constitute for unambiguous competitors for the company C and vice versa. The CEO did not see this as a problem as he sees that this is a growing industry and platform for it, would be beneficial

for all participants. In this interview corona crisis also appeared as one topic. During the pandemic, the company's revenue dropped, and the new strategy of partners as a new customer group was created at that time. The company clearly subsidizes the users of the platform, but the real challenge is not getting users—it's getting partners.

## 4.4 Summary of the findings

All three of the case companies have gone through changes in their business model, and which changes occurred within the business model varied considerably across the companies. By Täuschers and Laudiens (2018) attribute table all companies had seen change in geographic scope. Viewed through the lens of the Business Model Canvas, what united all the companies was a transformation in their customer segments. Overall, the greatest number of changes in the business model have occurred in Case Company A, which is the oldest of the firms. By contrast, the fewest changes were observed in Case Company B. Both company A and C had to change their business model due to achieving higher scalability. With A there was also the reason of on getting adequate workforce with cost efficiency. Company B's reason for change in BM was due new customer demand. Company C had also the reason to be able to enter foreign markets. Only the company A had the BM changes related to gaining positive network effects and tackling the chicken-and-egg problem.

**Table 12. Summary of the findings**

| | Case Company A | Case company B | Case company C |
|---|---|---|---|
| How business models evolve during the platform companies' lifecycle (RQ1, Täuscher & Laudien, 2017, table) | - Marketplace participants<br>- Geographic scope<br>- Platform type<br>- Price discovery<br>- Pricing mechanism | - Geographic scope | - Industry scope<br>- Geographic scope<br>- Revenue streams |
| How business models evolve during the platform companies' lifecycle (RQ1, Osterwalder & Pigneur BMC) | - Customer segments<br>- Customer relationship<br>- Channels<br>- Revenue streams<br>- Key activities<br>- Key resources<br>- Key partners<br>- Cost structure | - Value proposition<br>- Customer segments | - Value proposition<br>- Customer segments<br>- revenue streams |
| What lead to the changes in BM (RQ1) | - Need for scalability<br>- Workforce problem<br>- Strategy work | - New demand from customers | - Need for scalability<br>- ability to enter foreign markets |
| Were the changes related to gaining positive network effects or tackling chicken and egg problem (RQ2) | Yes | No | No |

None of the case companies corresponded fully to any single business model type identified by Täuscher and Laudien (2018, see table 3.), nor did a transition from one type to another occur. The companies were closest to the business model types of on-demand offline services and online services. However, the latter does not apply in this context, as all case companies in one way or another mediate labor, which classifies them as offline service providers. The on-demand offline service business model type, in turn, is conceptualized as a kind of "marketplace of marketplaces," in which the supply side consists of firms while the demand side is made up of consumers. In the case companies examined here, this relationship was inverted: consumers or users acted as the suppliers by offering their labor through the platforms.

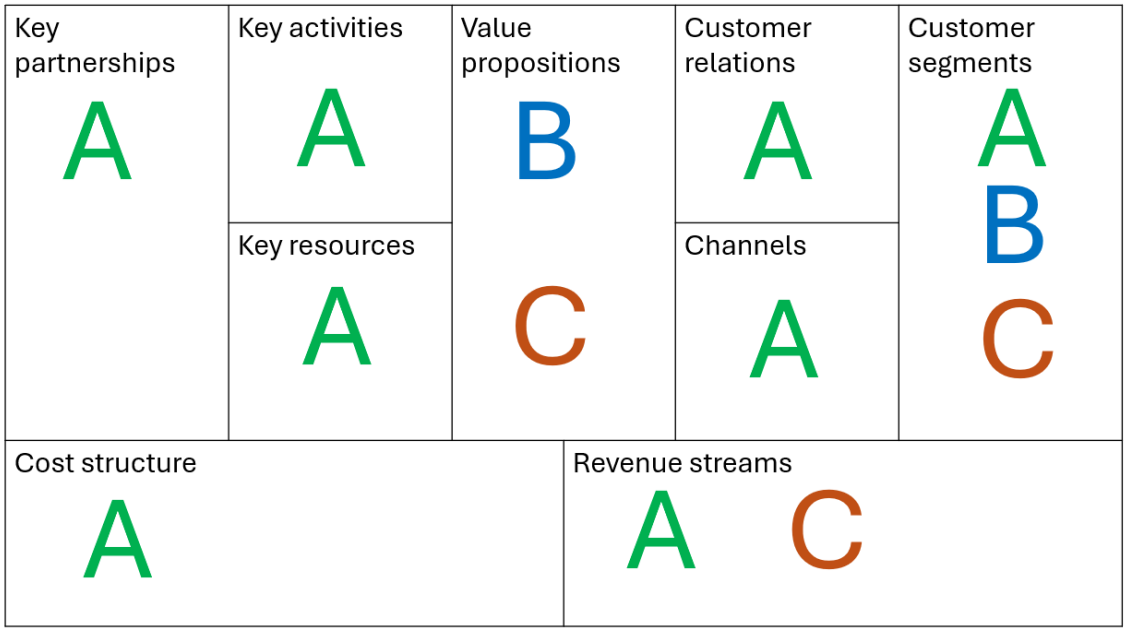


**Figure 7. Locations of BM changes in business Model Canvas (Osterwalder & Pigneur, 2010) of case companies A, B and C.**

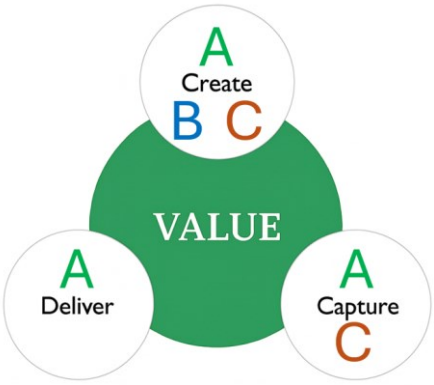


**Figure 8. Locations of BM changes in the value dimensions (After Teece, 2010)**

# 5 Discussion

This chapter is structured as follows. We first delineate the study's theoretical contributions. We then derive the managerial implications. Next, we discuss additional observations that, while not directly tied to the research questions, enrich the overall contribution of the study. Finally, we outline the study's limitations and propose avenues for future research.

## 5.1 Theoretical contributions

This study shed light on the business models of platform companies and their evolution over time in several ways. First, it provided empirical research that has been recognized as lacking (see Cheng, 2019). Addressing the first research question, in the case companies examined, changes in business models occurred primarily on the right side of Osterwalder and Pigneur's (2010) Business Model Canvas — that is, in the areas of customer segments, revenue streams, and value propositions. In other words, these changes were concentrated on the customer-facing side of the business model rather than on the firms' internal operations. Thus, the emphasis was on value creation and value capture (see Teece, 2010). The companies' business models evolved through changes in customer segments, pricing and value capture strategies, and by redefining the very purpose of the platform — that is, the platform began to address new problems faced by paying customers. This latter point refers to a change in the value proposition, in other words, new forms of value have begun to be offered to customers.

When this study is considered in light of Täuscher and Laudien's (2018) research suggestion to investigate business model changes and explore possible change patterns, its most obvious contribution is the indication that platform-based companies' business models tend to evolve over the course of their life cycle. All three case companies examined in this study had altered their business models, which is particularly noteworthy given that none of them were start-ups. If such results emerge from a sample of only three firms, it is reasonable to assume that in a larger population, a quantitative study

would likely find business model changes to be a common feature in the life cycles of platform companies. With regard to possible patterns of change in the Täuscher and Laudien's (2018) table, the clearest development observed in the case companies concerned geographic expansion. This, however, is arguably characteristic of all growth-oriented and growth-capable firms in a market the size of Finland.

Perhaps the most notable theoretical contribution of this study is the finding that the business model changes observed in the case platform companies were often driven by forces other than the chicken-and-egg problem or the pursuit of positive network effects. If two of the three case companies perceived the chicken-and-egg problem not as present in their business, this provides a cautious indication that the issue may be overstated in the traditional platform literature from Parker (2005,2016), Van Alstyne (2016), Evans (2003, 2007, 2016, 2008), Rochet and Tirole (2003), relative to its actual significance in firms. Various forms of online platforms have existed for more than a decade, and as platform companies have become more common and the related literature has expanded and popularized, the chicken-and-egg problem has become a familiar issue to most business practitioners, including the CEOs of the case companies in this study. Consequently, competitive advantage and differentiation from rivals may arise from more conventional mechanisms that are not typically associated with platform-specific dynamics such as the medling with positive network effects.

On the other hand, when returning to examine the changes in business models within the BMC, they are located in the areas that have traditionally attracted the greatest attention in the traditional platform literature and are linked to the network effects: customer or user segments and their substitution and pricing strategies (see e.g. Eisenmann, et al.2006).

## 5.2 Managerial implications

Some degree of danger lies in the popularization of platform business thinking, and platform business models. Its potential for scalability and the possibility of positive network

effects make it appear highly attractive—almost as though it were the eighth wonder of the world. Enchanted by this supposed marvel, one startup after another is founded, only to be subsequently driven into bankruptcy. Starting a company to just be a Uber in industry x, might not be a unique business model enough to survive in today's competition. Also, if considering b2c and c2c platforms, consumers might start to be oversaturated with hundreds of different apps and registrations just for fulfilling everyday needs. At this point the premise of a typical platform business model is old. Rather than thinking platform business as its own business model and as whole the purpose of a company's existence, it might be more fruitful to think what aspects of platform business could be utilized to overcome problems in operational day to day business.

The case company A leveraged platform thinking to overcome workforce and scalability problems, but its premise was never to become a platform company. Yet, the case company A is by every metric the most significant platform company of three case companies, utilizing the most advanced and sophisticated technical manners to sustain a large-scale platform and its users. The CEO of the company does not even see themselves as a platform company, only logistics company operating their business with the same value proposition and idea as they started over fifteen years ago. The mindset of the CEO and the company is well illustrated by the CEO's remark that the platform economy is highly suitable for certain purposes, whereas for others it is not applicable at all. At the same time, the vision of case company C has explicitly been to establish itself as a platform firm, complete with carefully reasoned revenue models. Nevertheless, the company has in practice failed to attract virtually any of the paying customers it sought to bring onto the platform. The CEO herself mentioned that things look nice in the dream excel, which suggests the underlying attractiveness of scalability in platform economies. The original service that company B initially sought to commercialize did not yield the desired outcome. By listening to its customers, the company conceived an entirely new service, in which it has performed commendably well relative to its size. The key takeaway for business practicers and alike is that instead of aiming to build the colossal platform for certain industry, it could more useful to ponder could the company benefit from using a

platform in specific ad hoc need instead harnessing the entire existence of the company around the platform model that relies too heavily on assumptions about the possibilities of scalability in the given market and not having enough flexibility to change the business model.

## 5.3 Other remarks

The one interesting remark with company B was that the CEO was comparing the companies' key resources and key actions to competition and via thinking this way, he did not put any emphasis on their expertise in information technology. He regarded this as a wholly generic matter that does not constitute a basis of competition in their field, since anyone with the necessary resources could produce code similar to theirs. This is particularly interesting, given that discussions of platform businesses often emphasize the collection and utilization of data, which is made possible through IT expertise and technology is in the heart of platform business (see Parker et al., 2016). On the contrary, the CEO of company B perceived their core activities and competences as lying entirely elsewhere—in areas that could pertain to virtually any type of firm, from a flower shop to a foundry—communication and PR. At present, information technology and related competencies are generally assumed to be part of a platform company's baseline capabilities, and emphasizing their significance may not necessarily be meaningful. This observation is somewhat related to the earlier point concerning the overcoming of the chicken-and-egg problem. Platform economies and platform firms can be viewed as industrie that once emerged as new. In the early stages of such industries, fundamental first-order capabilities allow pioneering firms to succeed. As the industry matures, however, those pioneering competencies become a banal baseline requirement expected of all companies. Consequently, firms may find themselves competing and differentiating and seeing their key resources and activities on more traditional business dimensions that are not immediately perceived as essential to the platform economy, as was the case with the company B.

Another particularly interesting finding of the study was that the participants of the marketplace do not necessarily define whether the platform firm itself should be categorized as B2C or B2B. For instance, in the case of Company A, the platform can be regarded as B2C—or more precisely, C2B—whereas the company itself perceived its operations as B2B, given that nearly all revenue streams originate from business clients. Similarly, Company B considered itself a B2B firm, even though its marketplace operated on a C2B basis.

Another noteworthy observation, in the process of identifying interviewees from among SME platform firms, it quickly became apparent that even in a market as small as Finland there exists an enormous variety of such companies. This observation suggests that the "winner-takes-it-all" notion frequently invoked in the literature may be somewhat misleading.

## 5.4 Limitations and suggestions for future research

The most apparent limitation of this study is that limited sample population of only three companies means that no far-reaching generalizations cannot be made. One limitation is also that the application of the Business Model Canvas (BMC) is to some extent subjective. The BMC is neither definitive nor absolute. If different individuals were asked to complete the canvas using the same background material, the resulting models would likely differ from one another. In this study, the author repeatedly faced the need to evaluate whether a particular change should be recorded in the canvas, especially in situations where a small modification had occurred but its impact on the company was negligible and the company's leadership did not regard it as significant.

Also, limitations relate to the suitability of the case companies for this study. Since the premise was to examine the development of platform firms' business models from the time of their founding to the present, and since each company was required to be more than five years old, no restriction was imposed that the firm had to be a platform company at the time of its establishment. However, if the focus is on how the business model

of a platform company has evolved—rather than on how a firm's business model changes as it transitions into a platform company—the suitability of Case Company A can be legitimately called into question. The fact that Company A transitioned into a platform business during its lifecycle likely explains, why its business model has undergone considerably more changes than those of the other case companies. In addition, it is open to discussion whether Company B can even be considered a genuine platform business. Paying customers are not present on the platform at all; rather, all interactions take place exclusively between the task performers and the platform administrators. Still, the company nurtures a clear marketplace, company only act as intermediaries for the buyers as the revenue originates from that source. This is evident when going back to Täuscher & Laudien (2018, p 2.) who state the following: "digital marketplaces connect independent actors from a demand and supply side (individuals or organizations) via a digital platform" and "these actors enter direct interactions with each other to initiate and realize commercial transactions. These interactions go beyond the highly automated processes in electronic commodity trading or stock markets."

An obvious suggestion for future research would be to continue investigating business model changes in platform companies in a manner similar to the present study but based on a larger sample population and by employing clearly quantitative methods. Such an approach would make it possible to draw more generalizable conclusions from the results.

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