University of South-Eastern Norway

Richard Reinsberg

Value Creation in Digital Marketplace Platforms

Behind Bezos' Napkin and Beyond

Dissertation for the degree of Ph.D
Marketing Management

USN School of Business

University of
South-Eastern Norway

Richard Reinsberg

Value Creation in Digital Marketplace Platforms

Behind Bezos' Napkin and Beyond

A PhD dissertation in
Marketing Management

USN School of business
University of South-Eastern Norway
Horten

Doctoral dissertations at the University of South-Eastern Norway no. 194

ISSN: 2535-5244 (print)
ISSN: 2535-5252 (online)

ISBN: 978-82-7206-858-4 (print)
ISBN: 978-82-7206-859-1 (online)

Print: University of South-Eastern Norway

"It's at the intersection between theory and practice where context becomes so extremely important—in terms of how you use theory to interpret the situation. One of our competitors chose a slightly different path than us, which I thought was reasonable, but they haven't had any success at all. So, is it the context of the Norwegian customers that is different? Another competitor hasn't been successful either. And where are the network effects that were supposed to be there—that we see in other economies? Where did it go wrong? Is it because the customers are different? Do other services like price comparison sites cover the need for transparent prices and variety equally as good or better than the marketplaces do? Or is it that there are so many online stores to choose from that the variety Amazon provides is no longer needed? So, yes, these are really interesting and important questions, and I recognize a lot of it. Maybe we wouldn't have failed if we had taken this into account and went 'all in'."

(Head of B2C, Komplett Group, interview in study 2)

Acknowledgments

This thesis marks the end of a five-year-long journey, and I am forever grateful to everyone who contributed to my professional development and to making this opportunity a reality.

First, I would like to thank my supervisors, Professor Per Egil Pedersen and Associate Professor Birgit Andrine Apenes Solem, for providing me with the best support I could ever expect as a business practitioner entering academia. Thank you, Per Egil, for making me go the extra mile, for providing valuable feedback on my work, for elevating the theoretical conceptualizations, and for contributing perspectives on my research interests that are at the forefront of international research. The main contribution of this thesis would not have been possible without your brilliant insights into and our thoughtful conversations about my research ideas during the most critical phases of this journey. Thank you, Birgit, for always being there, for guiding me with your valuable feedback, for pushing me to ensure I made progress in my work, and for keeping my motivation up during difficult times, during the pandemic, and despite busy schedules. Your enthusiasm and drive are an inspiration to everyone around you, and I look forward to many fruitful research endeavors with you in the years to come.

I would also like to thank USN for giving me the opportunity to pursue my doctoral degree. I am thankful to Camilla Nereid, Annett Arntzen, Geir Bjarvin and Cathrine Seierstad at the Department of Economics, History, and Social Sciences, and to the faculty of the USN School of Business—Therese Dille, Nina Prebensen, Birger Opstad, Thomas Bogen, Eiri Elvestad, and Hans Anton Stubberud—for their support throughout these years.

I am very grateful to the faculty members in the PhD program of Marketing Management. Special thanks goes to Kåre Sandvik, Fred Selnes, and Marit Engeset for challenging and inspiring me in my work. Your contributions have been highly valued. I would also like to thank all of the wonderful and inspiring faculty members I met during these years: Håvard Ness, Hallgeir Halvari, Etty Nilsen, Einar Breivik, Radu Dimitri, Anja Olafsen, Page Moreau, Ajay Kohli, Jay Lambe, and Dale Duhan. Thanks also to my mid-term evaluation committee, Helge Thorbjørnsen and Marko Kohtamäki, for their insightful comments and guidance during the development of my dissertation.

I would also like to thank the members of the Digital Transformation Research Group, including Thomas Brekke, Are Branstad, Håkon Sandvik, Guðbjartur Reynisson, Anders Råve, Yi Lin, and Adeel Riaz, whom I've had the pleasure of getting to know personally, collaborating with on research projects, and planning for exciting projects in the years to come.

Special thanks goes to Kristin Bentsen and Karianne Nyheim Stray for their helpful advice at every step of this PhD project and for taking the time to care for my well-being during all my ups and downs. I would also like to thank the remaining community of PhD researchers at USN, and especially those who made me feel welcome during my first year at Campus Ringerike: Ajmal Hafeez, Huy Tran, Daoyan Jin, Masoud Vardast, Eisa Tabrizi, Mesay Menebo, and Mesay Shanka. Special thanks to Mari Haugerud Sjøgren and Neema Kaya, with whom I spent my first year, during intense coursework.

I would also like to thank The Oslofjord Regional Research Fund for supporting the research project "Vivant Digital," and Jan Erik Hvidsten for taking on the challenge of hosting this research project on behalf of Sandefjord municipality and 20 different partners across South-Eastern Norway. Special thanks also to the business associations in Vestfold for the insightful conversations, workshops, and presentations, and for enabling me to discuss digital platforms and value creation with those who experience the associated challenges and opportunities on a daily basis. I would also like to thank the complementors for sharing their knowledge and thoughts freely, thereby allowing this research to emerge.

Finally, the greatest thanks of all goes to my family for their unconditional love and support. I would like to thank my parents for always believing in me and for supporting me in my endeavors, and to my parents-in-law for all of their support as well. Very special thanks to my three beautiful children, Kaja, Jørgen, and Ida, for cheering me up, supporting me, and reminding me of the most important things in life (you!), and, last but not least, very special thanks to my beautiful wife, Astrid, for believing in me, supporting me, and joining me on this journey.

Abstract

The overall research topic of this dissertation is to understand value creation in digital marketplace platforms from a business model perspective. The dissertation starts out by focusing on digital marketplace platforms to answer the question of how value is conceptualized across the platform literature. A systematic literature review of 181 scientific articles identifies 15 main and four subcategories of value conceptualizations comprising the platform owner, complementor, and customer, and indicates how individual sources of value are utilized through a variety of value delivery means—a complexity which is further explored in the second study. Study 2 answers the question of how relationships between value conceptualizations manifest in the business model of a digital marketplace platform, and introduces a conceptual framework termed "value logics", that reflects fundamental beliefs about value creation that underlie the business model as a configuration, including how the interplay of resources and capabilities affects value creation, delivery, and capture in marketplace platforms. A case study of three platforms validates the proposed value logics, resulting in the scale-driven value logic, the complementor-driven value logic, the scope-driven value logic, and the interaction-driven value logic. Study 3 reveals that platform business models also include the sharing of beliefs about value creation (value logics) among the value-creating partners of the ecosystem, not just the focal platform. Thus, the dissertation provides a more unified view of value creation (value logics) beyond firm boundaries. I finally examine how value logics can be theorized and evaluate the implications of value logics for both theory and management and conceive avenues for future research. In sum, the dissertation introduces a concept—value logics— that not only accounts for all platform users, but also advances our knowledge of different paths to achieving sustainable competitive advantage of platforms.

Keywords: value logics, value creation, platforms, business model

List of tables

List of figures

Table of contents

1 Introduction

The core of a firm's existence is its ability to create and capture value (Amit & Zott, 2001; Baden-Fuller & Morgan, 2010; Priem, 2007), and a significant body of literature has long emphasized the strategic role of value in achieving superior performance for either the firm or the customer (O'Cass & Ngo, 2011), but with differences in terms of the locus of value creation and capture. For example, resource-based (Barney, 1991; Peteraf, 1993) and positioning (Porter, 1980, 1985) research has focused on value capture for firms, with value creation conceptualized as a supply-side responsibility (Massa et al., 2017). The demand-side literature has highlighted the strategic relevance of customers to value creation (Adner & Snow, 2010a, 2010b; Priem, 2007; Priem et al., 2013; Priem et al., 2018; Ye et al., 2012) and has addressed the need to clearly distinguish between value creation and value capture (Priem et al., 2012). Here, value creation implies increasing benefits for customers and is determined by customers' willingness to pay, whereas value capture relies on profitable delivery as determined by market structure and resource ownership (Bowman & Ambrosini, 2000, 2001; Priem, 2001, 2007; Priem et al., 2018).

The business model literature, however, considers value creation as both a supply- and demand-side phenomenon (Amit & Zott, 2001; Casadesus-Masanell & Ricart, 2010; Casadesus-Masanell & Zhu, 2013; Chesbrough et al., 2002; Magretta, 2002; Massa et al., 2017; Teece, 2010; Zott & Amit, 2010; Zott et al., 2011), whereby value is created not only by producers but also by customers and other members of the value-creating ecosystem. This view complements existing resource-based (Barney, 1991; Kapoor, 2018; Peteraf, 1993; Sun & Tse, 2009), transaction cost (Calvano & Polo, 2021; Jacobides et al., 2018; Reimers et al., 2019; Williamson, 1985), and firm-positioning perspectives (Amit & Zott, 2001; Cennamo, 2021; Katz & Shapiro, 1994; Porter, 1980, 1985), and implies that advantages are sustained in contingent relationships between value creation and capture rather than through universal sources of value (e.g., resources) (Aversa et al., 2021; Rietveld, 2018).

A prime example of such contingent relationships—and their complexity—are those enabled by digital platform businesses. These platforms[1] act as intermediaries between customers and external complementors, thereby enabling value-creating interactions, which are organizing ever larger aspects of economic and social life (Kenney et al., 2019; Parker et al., 2016). Driven by the diffusion of information and communication technologies (Muzellec et al., 2015), platforms have become highly popular, organizing, reorganizing, or even transforming a host of industries (Eckhardt et al., 2018; Iansiti & Lakhani, 2017; Kenney et al., 2019; McIntyre & Srinivasan, 2017; Parker & Van Alstyne, 2018; Teece, 2018a; Zhao et al., 2019). Their purpose is to facilitate the exchange of goods, services, or social currency (Parker et al., 2016), and their growth is based on network effects (Chu & Manchanda, 2016; Cusumano, 2020; Parker & Van Alstyne, 2005), across either two sides (Armstrong, 2006; Caillaud & Jullien, 2003; Rochet & Tirole, 2003, 2006) or multiple sides (Gawer & Cusumano, 2014; Hagiu, 2014; Hagiu & Wright, 2015; Hein et al., 2019a) of the market.

Of the seven most valuable companies worldwide in terms of market capitalization, five (Apple, Microsoft, Amazon, Alphabet (Google), and Meta (Facebook)) are fully or partially based on a platform model (CompaniesMarketCap, 2024). The first trillion-dollar businesses were built around platforms (Cusumano, 2020), and between 60 and 70% of the 200 current and former "unicorn" companies (privately held startups with valuations of $1 billion or more) primarily rely on a platform business model (Cusumano et al., 2019). While platform companies like Amazon, Meta, Google, and Microsoft have been central firms in Western economies (Kenney et al., 2019), other platform companies, such as Alibaba Group or Tencent (from China) have dominated their domestic market and experienced a rapid international growth. And while Amazon leads the ranking of online *marketplaces* in terms of traffic, it is ranked behind Alibaba Group (operating the Chinese marketplaces Taobao and Tmall) in terms of gross merchandise value (Statista, 2023, 2024).

[1] In this thesis, I apply the term "platform" for digital platform businesses, in line with the definition of a platform by Parker, G. G., Van Alstyne, M. W., & Choudary, S. P. (2016). *Platform Revolution: How Networked Markets Are Transforming the Economy and How to Make Them Work for You*. WW Norton & Company. See chapter 2.1 for this definition, and chapter 2.2 for my focus on "marketplace platforms".

However, while some platforms successfully generate sales growth and profits, others lose extraordinary sums of money (Cusumano, 2020), and the failure rate is high (Yoffie et al., 2019). Nevertheless, McKinsey (2018) estimated that more than 30% of global economic activity will be mediated by a digital platform by 2024, and, within retail, there has already been a tremendous transformation where 35% of all online purchases globally are made on a marketplace (RetailX, 2023). Yet, digital platforms are no longer a phenomenon exclusive to high-technology contexts, as they exist in almost every market (McIntyre et al., 2021), and they all have some common features. They all, for instance, use digital technology to create self-sustaining feedback loops that can potentially increase the value of the platform with every new participant. In addition, they build an ecosystem of third-party complementors and partners that allow them to bypass traditional supply chains, often without formal supplier contracts (Cusumano, 2020; Gawer, 2014; Gawer & Cusumano, 2014).

One such example of a positive or self-reinforcing feedback loop is evident in the operational model of Amazon (Marketplace). Apparently, Jeff Bezos (the former CEO of Amazon) and his colleagues sketched the basic mechanisms ("the virtuous cycle") that would later be responsible for the company's success on a napkin, in the form of a flywheel (Figure 1).

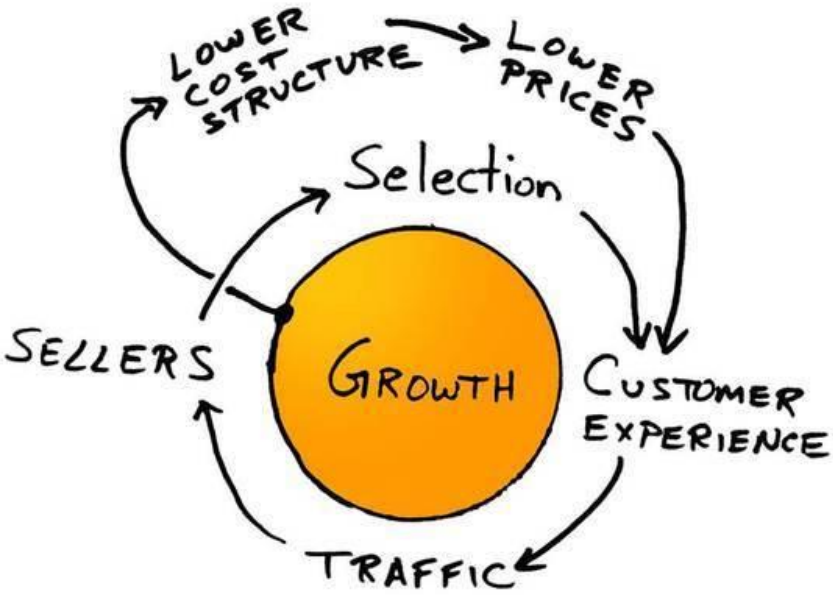


Figure 1: Amazon Flywheel, Jeff Bezos' napkin sketch.

This sketch was based on the flywheel concept, described in Collins' (2001) book, *Good to Great.* The sketch illustrates how lower prices on Amazon would lead to more customer visits, and more customers would increase the volume of sales, which would attract more third-party sellers willing to pay commissions on their sales. This growth allowed Amazon to utilize the resources of fixed costs operations (fulfillment centers, computer servers) at a greater level, which in turn enabled the company to lower its prices further (Keidel, 2005; Stone, 2013). In fact, these two virtuous cycles represent specific but different logics, with one cycle representing a logic where growth and scale are the sources of value that enable value capture through lower costs and the advantages of low prices, and the other reflecting the logic that selection creates value through a better customer experience. While the first logic is unrelated to Amazon being a platform company benefiting from network effects, the second logic is strongly linked to indirect network effects as it is the (third-party) sellers (complementors) that provide the selection (variety).

The concept of "logics" has been applied at different levels and via different traditions such as in institutional logics as field logics influencing organizations (Friedland & Alford, 1991; Thornton & Ocasio, 1999), in organizational logics as operationalizations of field logics at the organizational level (Biggart, 1991; Guillén, 2001; Spicer & Sewell, 2010), and in enterprise logics conceptualizing a firm's relationship with society (Bundy et al., 2013; Crilly & Sloan, 2012). In strategic management, logics have also been applied more explicit about presumably causal relationships, for example in mental models relating to organizational performance (Gary & Wood, 2011), and in dominant logics, reflecting shared mental models among (top) managers (Prahalad & Bettis, 1986). The business model literature treats logics as integral parts of a business model and addresses the underlying logic of how firms create and deliver value in an activity-based system (Massa et al., 2017; Zott & Amit, 2010). My conceptualization of value logics is more general than dominant logics in the sense that value logics are similar to organizational or enterprise logics in reflecting both organizational-level beliefs and their implementation in organizational routines and systems. Value logics are also more operational than dominant logics in covering the beliefs reflecting value creation relationships. For example, beliefs reflecting what kinds of value are created for whom, and through what mechanisms—i.e., the dimensions of value in a business model: value creation, value delivery,

and value capture (Teece, 2010). I therefore define[2] value logics as *fundamental beliefs about relationships between the dimensions of value in a business model*. Thus, value logics support the platform business model as a configuration of activities, resources, and capabilities.

Consequently, the "Bezos napkin" illustrates the complexity in how both generic sources of value and those specific to platform business models are integrated in elegant logics defined by the relationship between the value creation, value delivery, and value capture dimensions of a successful platform company.

1.1 Research questions for the thesis

While the extant platform literature has identified numerous individual sources of value creation, the relationships between them and, as illustrated by the "Bezos napkin," the ways in which sources of value creation are turned into value delivery and value capture seem to be much less explored. In fact, several scholars have emphasized the need to gain a clearer understanding of the overall value creation mechanisms supporting digital platform companies. For example, Cusumano (2020) argued that we do not have a clear view of why, when, and how we expect digital platform companies to be more efficient or robust than their non-digital platform-based counterparts, nor whether it is possible to identify and manage these business and market opportunities more effectively. McIntyre and Srinivasan (2017) asked what adds value to users besides the total number of complementors (e.g., variety, presence of key complementors). Cusumano et al. (2019) found evidence of platforms that are able to compete more on the basis of variety, quality, and location rather than only price (e.g., Airbnb) but nonetheless highlighted the need for "more research on the total costs and benefits of platform businesses to users and society, and not only to investors" (Cusumano, 2020, p. 11). Hänninen (2020) called for more attention to better understanding what benefits, if any, platform companies deliver to the distinct actors using them, while McIntyre et al. (2021, p. 8) stated that "relatively little research has examined the conversion of the benefits that users perceive in a platform into profitable revenue streams for the platform owner." Identifying these benefits, including the logics underlying the relationships between the value dimensions of creation,

[2] I provide a more detailed rationale for my definition in chapter 5.2 in this thesis.

delivery, and capture, would not only develop the theoretical domain but would also have clear managerial implications.

In line with the American Marketing Association's (2017) definition of marketing as "the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large," and the call for more research on the costs and benefits of platform businesses (Cusumano, 2020; Hänninen, 2020; McIntyre et al., 2021), including customers and other members of the value creation ecosystem (Aversa et al., 2021), this thesis first aims to provide an overview of how value concepts are conceived in the platform literature with a particular focus on digital marketplaces. The first research question is therefore defined as follows:

> **RQ1:** How is value conceptualized across the digital marketplace platform literature?

Through a systematic literature review, analyzing 181 scientific articles, 16 main and four subcategories representing higher-level and more generic value conceptualizations are identified where the literature differentiates between the platform owner, the complementor, and the customer as the originator of value, which represents a fundamental difference in how we look at value creation compared to a traditional value chain business. In addition, the review also indicates how individual sources of value are utilized through a variety of value delivery means, which has implications for how we consider value creation on platforms. Accordingly, there is a need explore the complexity between potential sources of value creation and value capture in platform business models (Cusumano, 2020), as found in "Bezos's napkin". Hence, the second research question is defined as follows:

> **RQ2:** How are relationships between value conceptualizations manifested in the business model of a digital marketplace platform company?

By applying the value dimensions of the business model concept (Teece, 2010), more extensive and complex relationships are revealed, and structured in a set of relationships that I term "value logics", that reflects fundamental beliefs about value creation that underlie the business model as a configuration. Through a case study of three platform companies, the proposed value logics are validated, resulting in four overarching value logics (the scale-driven value logic, the complementor-driven value logic, the scope-driven value logic, and the interaction-driven value

logic) based on the source of value that describe platform participants' underlying beliefs about how platforms create value, including how the interplay of resources and capabilities affects value creation and delivery, as well as how value is captured through efficiency measures, market power, and differentiation advantages.

However, as the developed framework focuses on the platform company as the focal entity, and on the view of platform managers, a third question is whether the proposed value logics from a platform company's perspective are also reflected in customers' and complementors' beliefs. In line with the calls for research outlined above (Cusumano, 2020; McIntyre & Srinivasan, 2017), I therefore formulated the third research question as follows:

> **RQ 3:** How are value logics reflected in beliefs among customers and complementors of digital marketplace platforms?

In other words, my aim was to explore whether the proposed value logics also support value creation for both the complementors and the customers connected to the platform (Hänninen, 2020; McIntyre & Srinivasan, 2017; Panico & Cennamo, 2020), and explore whether platform business models may include sharing of value logics among participants in a platform ecosystem. By applying a theories-in-use approach (Zaltman et al., 1982; Zeithaml et al., 2020) interviewing customers and complementors, I was able to provide a more unified view of value logics according to the business model literature's focus beyond firm boundaries.

In sum, all three studies shed light on the overall research topic of this thesis: understanding the value creation in digital marketplace platforms from a business model perspective. While existing research mainly focuses on the focal platform and platform efficiencies, this thesis provides different perspectives and a better understanding of value creation mechanisms in a platform business model by including customers and complementors in the equation (Cusumano, 2020; Hänninen, 2020; McIntyre & Srinivasan, 2017; McIntyre et al., 2021), and making a first step in introducing a concept (value logics) that not only accounts for all platform users, but also advances our knowledge of different paths to achieving sustainable competitive advantage of platforms.

1.2 Outline of the thesis

This thesis is organized into nine chapters. Chapter 2 provides the theoretical foundation for digital marketplace platforms, with definitions, typologies, and theoretical models applied in the platform literature, as well as a short overview of the extant research on the value concept covered in this literature. Chapter 3 introduces the overall scientific positioning and research design for the thesis.

Chapter 4 presents study 1, which involved a systematic literature review of conceptualizations of value across the platform literature (RQ1). Chapter 5 presents study 2, in which I explored the results from study 1 and uncovered relationships between the identified value conceptualizations in a digital platform business model that was validated through a multiple-case study (RQ2). Chapter 6 presents study 3, which investigated how the proposed value logics in study 2 are reflected in the beliefs of both customers and complementors of a marketplace platform (RQ3).

Chapter 7 provides a general discussion of the main findings of all three studies and how they relate to the overall topic of the thesis. In Chapter 8, the theoretical and managerial implications of the findings are discussed, where I first examine how generic and platform-specific elements of value logics can be theorized using traditional theories, such as the resource-based view, the positioning view, transaction costs economics, and the dynamic capabilities and demand-side strategy perspectives, as well as how my findings may inform these views. I also evaluate the implications of value logics for platform management and how they may be applied to platform strategies in which both resources and capabilities play a key role and where marketplace platforms still have a large, unused potential for implementing interactions as a key component in their business model. Finally, in Chapter 9, the thesis concludes by outlining its limitations and suggesting avenues for future research on the logics underlying platform business models, their theoretical bases, and their empirical substantiation.

2 Theoretical foundation

2.1 Definition of a platform

Platforms, in their essential form, have existed for hundreds, even thousands, of years. Since the Paleolithic, people have gathered at civic centers to exchange goods and provide services (Belleflamme & Peitz, 2019). In the 20th century, in the modern economy, shopping malls were built to link consumers and merchants, and newspapers were published to connect readers and advertisers (Van Alstyne et al., 2016). In other words, platforms are not a new phenomenon. What is new, however, is the way in which digital platforms transform traditional markets with technologies that facilitate interactions between market actors.

However, despite growing research interest, there is still no consistent definition of a platform, nor what it constitutes. Evans (2003a) stated that a platform can increase social surplus when three necessary conditions are met: there are two or more distinct groups of customers, there are externalities associated with these customers, and an intermediary is necessary to internalize the externalities. Rochet and Tirole (2006) focused on how platforms enable interactions between end users and attempt to get the two (or multiple) sides "on board" by appropriately charging each side. This focus on interaction between the market sides is also the key element in Hagiu's (2014, p. 71) definition, which states that "multisided platforms are technologies, products or services that create value primarily by enabling direct interactions between two or more customer or participant groups." While Rochet and Tirole (2003, 2006), along with Armstrong (2006) and others, focused on two-sided markets, Hagiu (2014) discussed multi-sided markets, which are no more than a straightforward generalization of the two-sided platform—from two sides—to multiple sides, as defined in Boudreau and Lakhani (2009). An intermediating technology platform that facilitates exchange activities between economic actors is also central to the definition given by Perren and Kozinets (2018), even though they focused on the sharing economy and use the term "lateral exchange market" (LEM) instead of "platform."

For this thesis, I build my work on the definition provided by Parker et al. (2016, p. 5), which states that "platforms are digital intermediaries that efficiently link external producers/sellers to consumers, thereby enabling value-creating interactions. Their purpose is to facilitate the

exchange of goods, services, or social currency." Table 1 provides a brief overview of the selected definitions. A more complete overview, including 30 different definitions or descriptions of platforms, is provided in Appendix 1.

TABLE 1

Selected definitions and descriptions of platforms in the literature

Author(s)	Definition or description
Boudreau and Jeppesen (2015, p. 1763)	"Multi-sided platforms, unlike traditional businesses organized with upstream suppliers and downstream buyers, facilitate value-creating interactions among platform participants that might include users on one side and various suppliers of complementary goods and services on the other."
Evans (2003a, pp. 331-332)	A platform can increase social surplus when three necessary conditions are met: (1) There are two or more distinct groups of customers, (2) There are externalities associated with customers A and B becoming connected or coordinated in some fashion, (3) An intermediary is necessary to internalize the externalities created by one group for the other group.
(Gawer, 2014, p. 1245)	Platforms are organizations or meta-organizations that federate and coordinate multiple agents to facilitate innovation on top of the platform's technology, whose architecture is modular and composed of a core and a periphery.
Hagiu (2014, p. 71)	"Multi-sided platforms are technologies, products or services that create value primarily by enabling direct interactions between two or more customer or participant groups."
Parker et al. (2016, p. 5)	**"Platforms are digital intermediaries that efficiently link external producers/sellers to consumers, thereby enabling value-creating interactions. Their purpose is to facilitate the exchange of goods, services, or social currency."**
Perren and Kozinets (2018, p. 21)	"We define a lateral exchange market (LEM) as a market that is formed through an intermediating technology platform that facilitates exchange activities among a network of equivalently positioned economic actors."
Rochet and Tirole (2006, p. 645)	"Platforms enable interactions between end users and try to get the two (or multiple) sides 'on board' by appropriately charging each side. That is, platforms court each side while attempting to make, or at least not lose, money overall."

2.2 Platform typologies

In management research, the use of platforms has mainly been characterized at three different levels: functional platforms, inter-organizational platforms, and industry or multi-sided platforms (Jia et al., 2021). Gawer (2014) and Gawer and Cusumano (2014) refer to the functional platforms as internal platforms, the intra-organizational platforms as supply-chain platforms, and industry platforms as external platforms, not specific to the company, but rather to the ecosystem or industry (Jacobides et al., 2024).

Research on functional platforms has mainly been related to product platforms, or product development platforms (Cusumano et al., 1998; Meyer & Utterback, 1993). McGrath (1995) defined a product platform as a collection of common elements, especially the underlying core technology, implemented across a range of products. The benefits of these platforms have been illustrated by examples from industries such as automobiles and consumer electronics, where a company can build families of related products around common components (Cusumano et al., 1998; Meyer & Lehnerd, 1997).

Inter-organizational platforms have typically been exemplified with supply-chain platforms, which carry out platform functions for a group of actors who collaborate in manufacturing, marketing, and research and development, as, for example, Boeing in aerospace manufacturing (Gawer, 2014), in export and import (Jia et al., 2021), or in providing a service or physical location for social or management functions (e.g., The European Biotechnology Platforms, Cooke et al. (2010)).

Industry platforms, also termed two-sided or multi-sided platforms, have been thoroughly discussed in the extant platform literature, starting in the early 2000s with a focus on two-sided markets. This focus received support in the industrial organization economics literature, which strongly focuses on network effects and strategic choices related to platform growth through pricing (Armstrong, 2006; Caillaud & Jullien, 2003; Evans, 2003b; Rochet & Tirole, 2003, 2006; Rysman, 2004, 2009). One distinguishing feature of industry platforms is their ability to generate "indirect" or "cross-side" network effects, such as between users and third-party complementors. A second distinguishing feature is that complementors generally join an "ecosystem" of suppliers, such as developers of applications for the Google Android smartphone (Cusumano, 2020). Later, the focus changed from two sides to a "multi-sided-ness"

in multi-sided platforms (Gawer, 2014; Gawer & Cusumano, 2014; Hagiu, 2014; Hagiu & Wright, 2015; Parker et al., 2016; Parmentier & Gandia, 2017; Zhu & Iansiti, 2012), which refers to platforms and their broader network of producers, suppliers, users, business partners, and other stakeholders (Cusumano et al., 2019; Jia et al., 2021), which applies to companies like Microsoft, Amazon, Apple, Alphabet-Google, and many other businesses. In addition to the industrial economics literature, which is dominated by the two-sided perspective, platforms also gained support from the technology management (e.g. Gawer, 2014; Gawer & Cusumano, 2008a; Tee & Gawer, 2009; Tiwana et al., 2010), and strategic management (e.g. Boudreau & Jeppesen, 2015; Cennamo & Santalo, 2013; Eisenmann et al., 2011; Zhu & Iansiti, 2012) literature.

The industry platform concept gained further attention through *The Business of Platforms* by Cusumano et al. (2019), in which the authors divided platforms into two types—innovation and transaction platforms[3]—based on their primary function and approach to value creation (Cusumano, 2020). Further, they argued that the most valuable and powerful platform companies combine these two platform types in a hybrid strategy, one that includes both innovation and transaction purposes, benefiting from connecting different types of platform businesses (Cusumano, 2020; Cusumano et al., 2019; Cusumano et al., 2020). While there are other conceptual works related to platforms within the sharing economy or peer-to-peer platforms (Eckhardt et al., 2019; Perren & Kozinets, 2018; Wirtz et al., 2019), or within search platforms (Yablonsky, 2016), the extant literature illustrates that the external, or industry-wide, platform stream is to date the most mature or developed typology of platforms, one which applies to a great variety of platform models, such as communication platforms (WhatsApp, Skype, WeChat), search platforms (Google, Bing), sharing economy platforms (Airbnb, Uber), development platforms (AppStore, Google Play, gaming consoles), crowdsourcing and crowdfunding platforms (Kickstarter), payment platforms (PayPal, Alipay, Visa, Venmo), retail or marketplace platforms (Amazon, Etsy, Zalando, CDON), booking platforms (Booking.com, Expedia), content and review platforms (YouTube, TripAdvisor), matching platforms

[3] The terms «innovation platforms» and «transaction platforms» first appeared in Evans, P. C., & Gawer, A. (2016). *The Rise of the Platform Enterprise: A Global Survey*. Centre for the Global Enterprise.

(TaskRabbit, Tinder), and social media platforms (Facebook, Twitter) (Cusumano et al., 2019; Gawer, 2021; Wirtz et al., 2019).

This thesis relates to the industry platform concept (Gawer & Cusumano, 2014), and the transactional platform typology (Cusumano et al., 2019), with a particular focus on marketplaces as the category of platforms within the transaction typology (Gawer, 2014; McIntyre & Srinivasan, 2017; Täuscher & Laudien, 2018), and thereby the title: *value creation in digital marketplace platforms.* While marketplace platforms are the focus of the thesis, I still allow other platforms to inform my view, both within the transaction typology as well as the innovation platforms typology, as defined in the following studies and indicated with dotted lines in Figure 2.

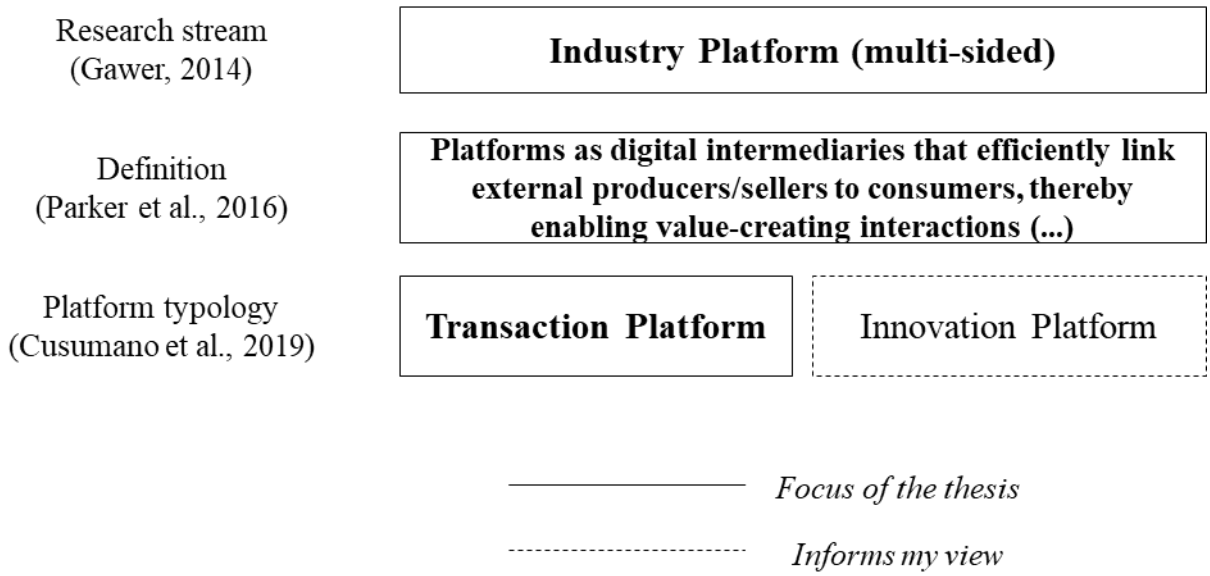


Figure 2: Conceptual focus of the thesis.

2.3 Theoretical foundations of value creation in platform models

2.3.1 A multi-sided market and network effects

According to (Jia et al., 2021), two main theoretical models seem to have influenced the platform literature: the concept of a two- or multi-sided market based on the industrial

economics literature, as described in the previous section; and the concept of network externalities or network effects. In the academic community, economists started describing "two-sided markets" driven by "network externalities" (e.g., Katz & Shapiro, 1985). Earlier, Rohlfs (1974) had described the increased utility of a communications network to every new user who joined the system. The term "network effects" was later used when referring to positive feedback loops with increasing returns that users experience when there is an externality (Liebowitz & Margolis, 1994, 1995). Some well-known examples from this time period are Microsoft, Intel, Apple, and IBM, all of which disrupted the existing (mainframe) computer industry. These companies transformed the personal computer into a mass-market digital platform, integrating separate layers such as hardware and semiconductors, operating systems, application software, sales, and services (Cusumano, 2020).

The theoretical concept of network effects is related to network economics and the broader concept of network externalities (Katz & Shapiro, 1985, 1986; Liebowitz & Margolis, 1994, 1995). In general, "a network effect is the marginal effect of an additional platform user on the existing users on the same side of the market (same-side network effect) or on the other side of the market (cross-side network effect)" (Wallbach et al., 2019, p. 2). In indirect or cross-side network effects (commonly used interchangeably), the different sides of a market mutually benefit from the size and characteristics of the other side (Boudreau & Jeppesen, 2015; Evans, 2003b; Hagiu, 2014; McIntyre & Srinivasan, 2017; Rochet & Tirole, 2003; Yang et al., 2020). Given the interdependent relationship between the two or more sides (Zhao et al., 2019), the underlying mechanism is that a larger group of complementors offering products on the platform leads to greater demand by consumers for that platform and vice versa (Boudreau & Jeppesen, 2015; McIntyre & Srinivasan, 2017; Zhu & Iansiti, 2012). Indirect network effects therefore "reflect the underlying interdependency (and complementarity) between the demands from two or more types of consumers" (Gawer, 2014, p. 3), including future expectations of network effects (Steiner et al., 2016). Hence, in general, the greater the number of platform users there are, the greater each user's opportunities are to benefit from interacting with other users (Cennamo, 2018) where both the size of the network, as well as the characteristics of the network and its participants (network structure and behavior of the participants) determines the potential for value creation (Afuah, 2013).

2.3.2 Theories supporting value creation on platforms

A closer investigation reveals that, besides the concept of network effects, the platform literature extensively draws upon traditional theories of marketing, management, and strategy, such as the resource-based view (RBV) (Barney, 1991; Peteraf, 1993), the firm positioning view (Porter, 1980, 1985, 1996), and transaction costs theory (Williamson, 1975, 1985), to understand how platforms create, deliver, and capture value.

The RBV and Porter's industrial organization (IO) economics-based contributions (Porter, 1980, 1985) focus on the mechanisms of value creation and value capture within the boundary of the firm. For example, Bowman and Ambrosini (2000) applied the RBV to understand the unique resources that create value and the IO perspective on bargaining power to identify value capture opportunities. In this view, the source of value and profits is the combination and deployment of labor with other resources, including the structuring and bundling of resources to build capabilities and leveraging those capabilities to exploit market opportunities (Sirmon et al., 2007). Value is created by organizational members, and value capture is determined by the perceived power relationship between economic actors. Even later theories, such as the theories on dynamic capabilities (Teece, 2007) and managerial capabilities and cognition (Adner & Helfat, 2003), place the main focus of value creation on factors internal to the firm, yet ironically rely on changing business environments and ecosystem collaboration.

In contrast to the focus of the RBV and the positioning view on value creation as a supply-side responsibility, the demand-side literature highlights the strategic relevance of customers to value creation (Priem et al., 2018). In particular, the demand-side perspective applies to how value is created by the customer and by firm–customer interactions at the points of exchange, use, and after use (O'Cass & Ngo, 2011). In this view, the value creation process includes "any activity that provides a greater level of novel and appropriate benefits than target users or customers currently possess, and that they are willing to pay for" (Lepak et al., 2007, p. 184). Thus, value creation starts by identifying what value to provide to customers and then designing the value offering (e.g., performance, price, relationship) to the customers, often referred to as the point of proposition (O'Cass & Ngo, 2011; Payne et al., 2017; Sirmon et al., 2007). The customer then "subjectively determines the value offering based on his/her perception of the benefits (use value) embedded in the value offering" (O'Cass & Ngo, 2011, p. 650), affecting

their willingness to pay (exchange value), a precondition for value capture (Priem, 2007). In other words: Value creation from a demand-side view involves increasing the use value for the customer or decreasing the exchange value to increase customer surplus, while value capture focuses on profitable value delivery (Priem et al., 2018).

2.3.3 Business model

A business model refers to the core logic that a firm or any other organization employs to achieve its goals (Massa & Tucci, 2021). While several definitions of a business model exist across studies (see Foss and Saebi (2017) for an overview), most current definitions are close to or consistent with that of Teece (2010, p. 172), who defined a business model as "the design or architecture of the value creation, delivery, and capture mechanisms" of a firm. Despite conceptual differences, there is widespread acknowledgment that a business model is a unit of analysis distinct from the product, firm, industry, or network. While centered on a focal firm, the boundaries of the firm are wider, emphasizing a system-level holistic approach to value creation and capture (Magretta, 2002; Pedersen et al., 2017; Zott et al., 2011). This implies rethinking the traditional value chain configurations and logics of value creation to include a set of activities, as well as the resources and capabilities to perform them, beyond firm boundaries through cooperation with partners, suppliers, or customers (Amit & Zott, 2001). In other words, value creation is seen as both a supply- and demand-side phenomenon (Casadesus-Masanell & Ricart, 2010; Casadesus-Masanell & Zhu, 2013; Massa et al., 2017). The content, structure, and governance of transactions are designed to fulfill customers' needs and create customer surplus while providing the foundation for value capture for both the focal firm and other members of the value-creating ecosystem (Zott & Amit, 2010; Zott et al., 2011).

An important aspect of a business model is that the variety of strategic elements (activities, resources, capabilities, and technologies, etc.) are drawn together, combined, and arranged in different ways to determine whether the company is successful or not. It is not one single combination of value elements that generates value, but rather many generic types and possible variations that determine the outcome of value (Baden-Fuller & Morgan, 2010). Therefore, it is not a simple exercise to copy the business model of a successful business and transfer it to another company or another context. A popular analogy in this regard involves comparing a business model to a recipe: In this analogy, the chef (company) combines and arranges

ingredients (strategic elements) according to a recipe (business model) but still has many possibilities for innovation within broad constraints (Baden-Fuller & Morgan, 2010; Sabatier et al., 2010). In a platform context, then, the concept of "platform business models" has naturally gained attention (e.g., Ladd, 2022; Täuscher & Laudien, 2018), with researchers investigating the evolution of business models among platform companies, which combine complex business model designs with innovation and imitation to create highly intricate systems of activities (Zhao et al., 2019).

2.3.4 Platform ecosystem

A key characteristic of a platform model compared to a traditional value chain is the community of actors associated with the platform and its network who interact directly or indirectly with the transacting partners, and the platform ecosystem literature has highlighted how the "locus of activity resides outside organizational boundaries while the locus of control remains within the organization" (Altman et al., 2022, p. 70). For example, in terms of value creation, Adner (2017, p. 41) made a distinction between two general views: (1) "ecosystem-as-affiliation" and (2) "ecosystem-as-structure." The first view, which "sees ecosystems as communities of associated actors defined by their networks and platform affiliations" (Adner, 2017, p. 41), focuses on increasing the number of actors linked to a platform, the value of direct and indirect network effects, and the value from interactions between participating actors (Parker et al., 2016). The main goal in this view is to increase the overall value of the system, with governance and community enhancement to support growth, thereby enhancing the value capture opportunities for the platform (e.g., through increased bargaining power) (Jacobides et al., 2018).

However, according to Adner (2017), the affiliation view provides limited insights into the specifics of value creation. He therefore offered a complementary approach, the ecosystem-as-structure view, which "views ecosystems as configurations of activities defined by a value proposition" (Adner, 2017, p. 40). With value proposition as the main focus, emphasis is placed on the benefit of value delivery to a customer, where interdependent activities, as well as the structural positions of the participating actors, are the key elements underlying a shared value proposition for the ecosystem. Thus, Adners's (2017) structural view provides a valuable lens in understanding the complexity between value creation and capture in a platform business

model and in my development of "value logics"—where advantages are sustained in contingent relationships between value creation and capture rather than through universal sources of value, and where the interactions among the participating actors are much more complex than in traditional value chain configurations (Aversa et al., 2021; Rietveld, 2018).

2.4 The focus on value in existing platform literature streams

In the management literature, platform research has historically been covered in four distinct literature streams relating to the different typologies of platforms: the product family stream, including product—and product family— platforms; the platform ecosystem[4] stream[5], covering industrial and technological platforms; the market intermediary stream, covering two- and multi-sided platforms; and the organizational stream, covering platform organization and investments (Thomas et al., 2014). The product family stream, supported by the product development literature, focuses on the value obtained by economies of scope and product modularity (e.g., Meyer & Lehnerd, 1997; Robertson & Ulrich, 1998). The platform ecosystem stream relates to the technology management literature, where value is obtained through both economies of scope (modularity) and scale (efficiency and market power) (e.g., Bresnahan & Greenstein, 1999; Gawer & Henderson, 2007; West, 2003). The organizational stream, supported by the corporate strategy literature, focuses on the value obtained from economies of scope and created through flexibility and superior adaptation (e.g., Ciborra, 1996; Kim & Kogut, 1996; Kogut & Kulatilaka, 1994). While reflecting different perspectives on the typologies of platforms and their business models, the contributions of these streams to our understanding of value creation are limited to the value capture mechanisms of the platform company.

[4] The ecosystem concept has developed separately from the platform literature where the term «ecosystem» describes a business ecosystem, an innovation ecosystem or a platform ecosystem. The distinction between platforms and ecosystems is well described in Jacobides, M. G., Cennamo, C., & Gawer, A. (2024). Externalities and Complementarities in Platforms and Ecosystems: From Structural Solutions to Endogenous Failures. *Research Policy*, *53*(1), 104906. https://doi.org/10.1016/j.respol.2023.104906

[5] While the ecosystem stream has evolved separately, efforts have been made to integrate literature streams, as in Altman et al.'s (2022) review of ecosystem, platforms and open/user/distributed innovation: Altman, E. J., Nagle, F., & Tushman, M. L. (2022). The Translucent Hand of Managed Ecosystems: Engaging Communities for Value Creation and Capture. *Academy of Management Annals*, *16*(1), 70-101. https://doi.org/10.5465/annals.2020.0244

Even the market intermediary stream, based on the IO economics literature, focuses primarily on value obtained by economies of scale and network effects, and, thus, value capture through market efficiency and the market power of the platform company (e.g., Armstrong, 2006; Caillaud & Jullien, 2003; Rochet & Tirole, 2002, 2003, 2006). Still, besides the separate ecosystem stream[6], the market intermediary stream of literature seems to be the most developed with regard to multiple users' value creation in platforms. It is in this stream that we can recognize a growing attention to various sources of value creation and means of value delivery. For example, researchers have discussed how platforms encourage and stimulate third-party complementors to contribute to the platform's value creation (Cennamo, 2021; Cusumano & Gawer, 2002; Gawer & Cusumano, 2002; McIntyre & Srinivasan, 2017; Rietveld & Schilling, 2021; West, 2003), Yang et al. (2020) focused on value from technical benefits (e.g., user experience), complementors' benefits (variety and quality), and network benefits (interactions between market sides and improved matching). Hänninen (2020), in reviewing online transaction platforms in the marketing literature, underlined the potential value obtained through consumers' perceived platform benefits.

While demonstrating a growing interest in wider notions of value than value capture, none of the previous reviews synthesized conceptualizations of value across different fields of literature, nor did they provide sufficient insights into the origins of each source of value in a platform ecosystem. The only exception is McIntyre and Srinivasan (2017), who integrated findings from the industrial organization literature (e.g., Caillaud & Jullien, 2003; Rochet & Tirole, 2003, 2006), the technology management literature (e.g., Gawer, 2014; Tiwana et al., 2010), and the strategic management literature (e.g., Cennamo & Santalo, 2013; Eisenmann et al., 2011) and added value creation from platform quality and complementor dynamics to the knowledge base.

Therefore, through study 1, this thesis aims to provide a broader overview of how sources of value creation, means of value delivery, and mechanisms of value capture are conceived in the platform literature, where value is created not only by producers but also by customers and

[6] While I recognize the perspective of coordinating multiple actors to create value in the ecosystem literature, this thesis focuses on the platform literature stream going forward.

other members of the value creation ecosystem (Aversa et al., 2021). In study 2, I formulated how the relationships between these value conceptualizations are manifested in a business model from a platform owner's[7] perspective. Finally, in study 3, I explored how these relationships are reflected in beliefs among customers and complementors, all within the context of digital marketplace platforms. This investigation responded to the call for a better understanding of value creation mechanisms among all users, not just platform owners (Cusumano, 2020; Hänninen, 2020; McIntyre & Srinivasan, 2017; McIntyre et al., 2021).

[7] In this thesis, I do not differentiate between platform owner, sponsor, provider, or operator for simplicity reasons. Still, I acknowledge that these roles may be filled by one company or multiple firms. See for example the discussion of platform design in Eisenmann, T. R. (2008). Managing Proprietary and Shared Platforms. *California Management Review*, *50*(4), 31-53. https://doi.org/10.2307/41166455

3 Methodology

This chapter defines my overall scientific positioning and approach to reasoning as applied to my research and provides an overview of the data collected and analyzed to shed light on the research questions posed in this thesis. More detailed methodological argumentations regarding each study (1–3) are presented in their respective chapters (chapter 4–6), while the limitations of these studies are discussed in chapter 8.

3.1 Scientific positioning, reasoning, and knowledge creation

This thesis follows a postpositivist paradigm (and a realist ontological position) (Creswell & Poth, 2018; Guba & Lincoln, 1994; Hunt, 1991). The deductive approach, described below, is consistent with this position (Hyde, 2000).

Guba and Lincoln (1994) argued that "the choice of research paradigm, rather than the choice of research method is the overriding concern" (Hyde, 2000, p. 82), while Saunders et al. (2019) stated that the research philosophies and approaches to theory development influence the methodological choices and research strategies of researchers. While the traditional view is that quantitative researchers relate to a "positivist" paradigm of science, and qualitative researchers subscribe to a "interpretivist" paradigm, postpositivists do not believe in strict cause and effect but rather "recognize that all cause and effect is a probability that may or may not occur" (Creswell & Poth, 2018, p. 23). Postpositivism has the elements of being "reductionistic, logical, empirical, cause-and-effect oriented, and deterministic based on a priori theories" (Creswell & Poth, 2018, p. 23; Shaw, 2017). In practice, researchers work through a series of logically related steps, apply multiple perspectives from participants or informants rather than applying a single reality, and employ rigorous methods of qualitative data collection and analysis in theory building (and testing) (Creswell & Poth, 2018; Fox, 2008).

Deductive reasoning is a process that begins with an established theory or generalization and seeks to determine whether the theory applies to specific instances (Hyde, 2000; Shepherd & Sutcliffe, 2011; Sætre & Van de Ven, 2021). Therefore, starting with the empirical observation of Bezos' napkin, of how sources of value are turned into value delivery and value capture in a platform business model, this thesis develops a conceptual framework from the literature (theory), which is then validated empirically (refinement) in specific (platform) contexts

(Eisenhardt & Graebner, 2007). According to Yin (2018), cases that confirm my suggested propositions enhance confidence in the validity of the concepts and the relationships, whereas cases that disconfirm these concepts and relationships provide an opportunity to refine the theory.

Still, the qualitative researcher can adopt both inductive and deductive processes (Patton, 1990, 2002, 2015; Wellman et al., 2023), for example in how researchers have combined primary deductive methods to test theory, followed by secondary inductive methods to explore and deepen their understanding (e.g., Brennecke, 2020; Dyer et al., 2021; Mell et al., 2020; Sutton et al., 2021) as applied in study 2 of this thesis, or how researchers have iterated between inductive and deductive methods (e.g., Cunningham et al., 2023; Li & Vermeulen, 2021; Ody-Brasier & Vermeulen, 2020), as applied with the use of the theories-in-use approach (Zaltman et al., 1982; Zeithaml et al., 2020) in study 3. The basic premise in this regard is that, to develop a good theory, one must understand how, for example, managers or customers think. Thoughts about causal inferences or relationships may not be conscious or explicit among the research subjects, and researchers may hold assumptions that may or may not be valid (Zaltman et al., 1982). A stepwise sequence combining the deductive and inductive approach is therefore applied, moving back and forth between theory and data, to increase the potential theoretical contribution from the thesis (Tunarosa & Glynn, 2017).

According to Zaltman et al. (1982, p. 118), knowledge, and especially theory, is ultimately personal. It may have many ways of being valid, but it is still socially and psychologically construed. As they stated it: "knowledge then, is the mapping of experienced reality." Thus, customers and complementors (managers) may experience the reality of transacting and interacting with a platform provider differently, and they may differently map out or describe how they experience the different mechanisms (i.e., logics) in a platform business model (study 3) and may not necessarily agree with the platform's perspective (study 2) or the perspective of one another. This is in line with how, for example, Rydén et al. (2015) explored how mental models of business–customer interactions affect the sensemaking of social media, and with how Zahra and Nambisan (2012) observed management cognition as an important barrier for companies, limiting whether managers question current ways of operations to improve the business and open new possibilities. Also, research in marketing has already discussed how mental models can affect interactions between businesses and customers, e.g., Lilien (2011)

addressed the academic–practitioner divide in marketing decision models, and Wind (2009) considered how the field of marketing must reexamine its own mental models.

Thus, if knowledge is the mapping of experienced reality, one way of uncovering knowledge is to learn about the maps held by people with appropriate experiences, which was the focus in study 3 (Argyris & Schon, 1974; Zaltman et al., 1982). Also, in study 2, I looked for commonalities of the informants' knowledge to define what underlies effective practice, hence developing a theory that has pragmatic validity (Worren et al., 2002).

3.2 Research design

Throughout the studies on which this thesis is based, the unit of analysis was as the firm-level (firm), while the unit of observation included firms, unit of firms and individuals, all within the frame of the theory of the firm (see Foss (2000) for an overview), where the platform literature served as the theory of the firm-literature. Figure 3 illustrates the three studies in the thesis, and Table 2 provides a brief overview of the collected data[8].

To answer the first research question and identify conceptualizations of value in the platform literature, as related to digital marketplace platforms, a systematic literature review based on the SCOPUS database was conducted in study 1, involving a detailed analysis of 181 articles across the marketing, strategy, innovation, and management literature. These literature streams were chosen because my point of departure was a thesis in Marketing Management, and I wanted to capture relevant side streams of that literature, but also because the body of research on platforms has benefitted from contributions from strategy, innovation, economics, organization studies, and information systems (Gawer, 2022), but less from the marketing field that traditionally has a strength in focusing on customers and their role in value (co-)creation.

To answer the second research question, a two-stage approach was applied in study 2. First, the dataset from the literature review was revisited to identify any suggested (by the literature) relationships between the three value dimensions in a business model (value creation, value

[8] A more detailed presentation of each study's methodology is provided in its respective chapters (Ch. 4.1, Ch. 5.2, Ch. 6.1).

delivery, value capture), after which a conceptual framework, which I termed "value logics," was developed. A multiple-case study of three platform companies was then conducted to determine the validity of the framework from their perspective, combining interview data and secondary data (containing publicly available company data and interviews of c-suite managers).

To answer the third research question (study 3), a discovery-oriented theories-in-use approach (Zaltman et al., 1982; Zeithaml et al., 2020), including in-depth individual interviews and focus group interviews, was conducted among customers and complementors of marketplace platforms. The theories-in-use approach (as a method of theory construction) represents mental models of how things work in a particular context, as socially constructed maps of experienced reality (Argyris & Schon, 1974), and fits well with my research agenda of investigating customers' and complementors' perceptions of value logics and how they align with their own mechanisms of value creation.

All three studies thereby shed light on the overall research problem of understanding value creation in digital marketplace platforms from a business model perspective, including the value creation mechanisms for all users, not just platform owners (Cusumano, 2020; Hänninen, 2020; McIntyre & Srinivasan, 2017; McIntyre et al., 2021).

Being a single researcher, my principal supervisor and co-supervisor acted as external auditors of the research process deployed while conducting these studies to ensure trustworthiness, validity, analytical rigor, and interpretability (Lincoln & Guba, 1985).

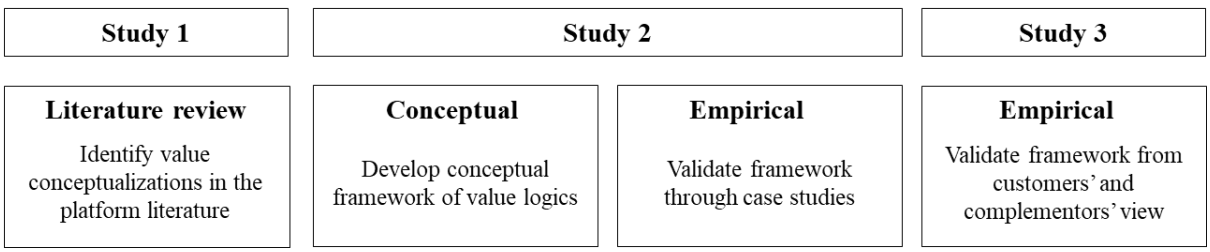


Figure 3: Overview of studies described in the thesis.

TABLE 2

Data collection overview

Description	**Source**	**Dataset**	**Purpose of use**
Study 1: Literature review	SCOPUS database	181 CABS-ranked scientific articles analyzed	Overview of value conceptualizations
Study 2: Case study of three platform companies	Study 1	Analysis of data from the literature review	Development of conceptual framework
	Semi-structured interviews, informal conversations, and meetings	Five interviews, 147 double-sided pages of interview transcripts, 10 pages of field notes	Validation of conceptual framework from the platform perspective
	Company reports, presentations, press releases, recorded interviews	1,729 pages, 1 h, 30 m of audio/video recordings of c-suite managers	Validation of conceptual framework from the platform perspective
Study 3: Theories-in-use of value logics	Semi-structured interviews and focus group interviews with customers and complementors	26 informants, 401 double-sided pages of interview transcripts	Validation and enrichment of the conceptual framework from the complementor and customer perspective

4 Study 1: Literature review

Despite the rapidly growing body of literature covering digital platforms and their business models, the contribution of value is primarily limited to the value capture mechanisms of the platform company (i.e., the platform operator). Although I recognize the increased attention being paid to various sources of value creation and means of value delivery (e.g., Hänninen, 2020; Jia et al., 2021; Yang et al., 2020), none of the previous reviews identified in chapter 2.4 synthesized conceptualizations of value across different fields of literature, nor did they provide sufficient insights into the origins of each source of value in a platform ecosystem, where value is created not only by producers but also by customers and other members of the value creation ecosystem (Aversa et al., 2021; Kretschmer et al., 2020).

To provide an overview of the value-creating conceptualizations supporting the business models of digital platforms, this thesis therefore asked the following research question: *How is value conceptualized across the digital marketplace platform literature*[9]*?* To answer the research question, I identified conceptualizations of value across the fields of strategy, marketing, management, and innovation, and additionally demonstrated how these conceptualizations comprise value dimensions—represented by sources of value creation, means of value delivery, and mechanisms of value capture—in line with the business model literature (Massa et al., 2017; Priem et al., 2018; Teece, 2010).

4.1 Method

I conducted a registered[10] systematic literature review (see Figure 4 for a summary of the systematic review process) following prior discussions and established guidelines and principles (Aguinis et al., 2018; Denyer & Tranfield, 2009; Hulland & Houston, 2020; Macpherson & Jones, 2010; Palmatier et al., 2018; Tranfield et al., 2003) similarly considered in recent review articles (Cacciotti & Hayton, 2015; Ceipek et al., 2019; Maddux et al., 2021; Wang & Chugh, 2014). To answer the research question and identify the value

[9] In "the literature", this means the author's own conceptualizations of value, but these are obviously meant to reflect the perspectives of the actors in the platform ecosystem.

[10] The review is registered on the Open Science Framework website: https://osf.io/zkqny/?view_only=7f72b61f2b174bd4bdde3e65dbfce1cb

conceptualizations of digital marketplace platforms, including the ecosystems of platform users, I applied the definition of platforms proposed by Parker et al. (2016, p. 5): "platforms are digital intermediaries that efficiently link external producers/sellers to consumers, thereby enabling value-creating interactions (…) to facilitate the exchange of goods, services, or social currency." Hence, in addition to the focal platform company, I considered both customers' and complementors' perspectives when developing the search, inclusion, and exclusion criteria. Further, I set the boundaries for the study according to the market intermediary stream, as this stream is the most developed in terms of an ecosystem approach to value creation, and then specifically focused on the transaction platform type. However, I also allowed innovation platforms to inform my view, particularly since the most powerful platform companies combine these two platform types in a hybrid strategy (Cusumano et al., 2019).

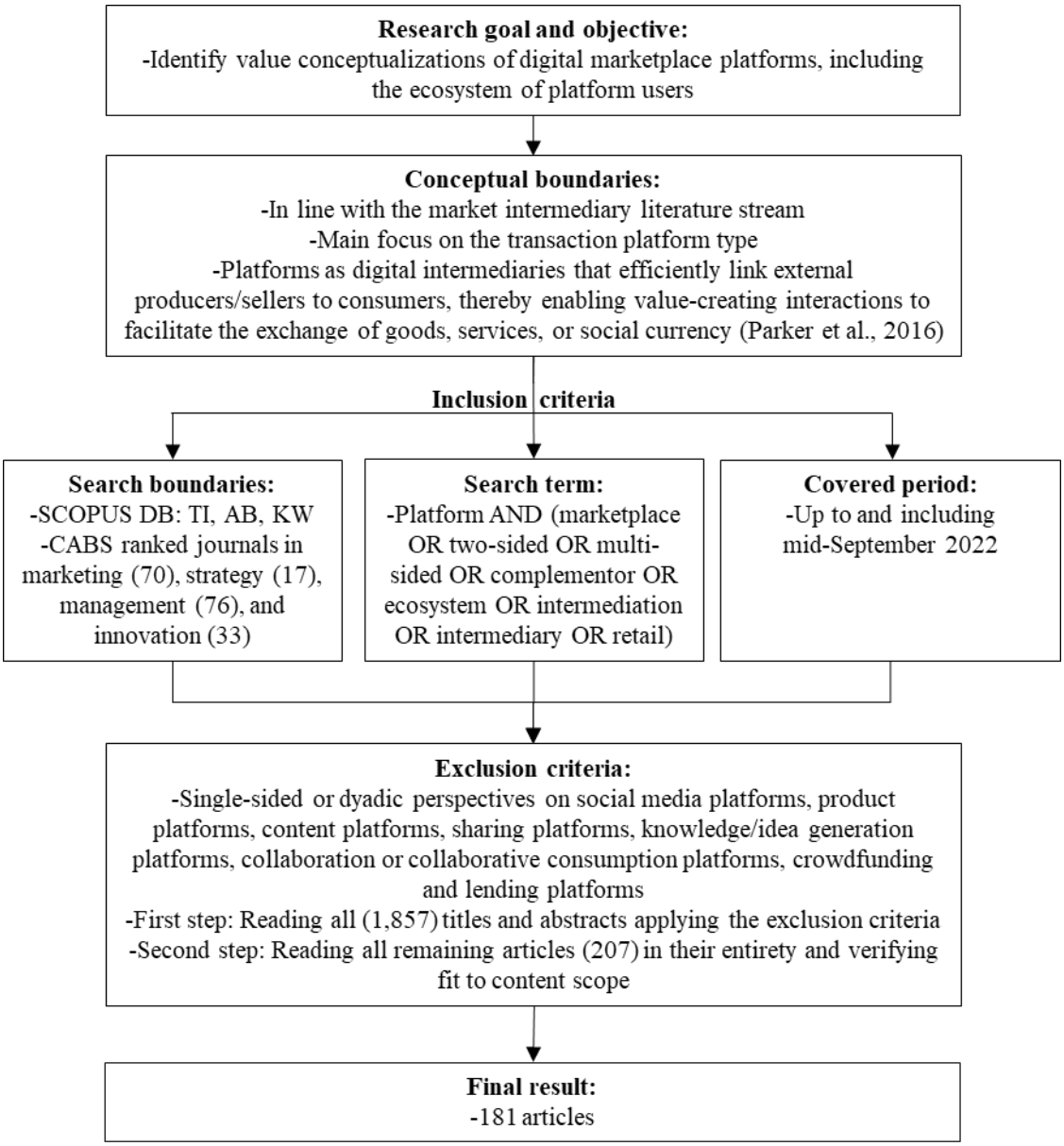


Figure 4: Summary of the systematic review process.

My search included academic journal articles listed in the Chartered Association of Business Schools (CABS) Academic Journal Guide 2018, by subject area (Wood & Peel, 2018), and all listed journals within the following fields of business and management: "General Management, Ethics, Gender, and Social Responsibility," "Innovation," "Marketing," and "Strategy"—a total of 196 journals (see Table 3). This selection was based on an informal search and discovery process, using the term "platform" across different databases (SCOPUS, EBSCO Host Business

Source Premier, ISI Web of Science, and Google Scholar) to identify highly cited studies and related fields in the literature.

TABLE 3

Number of journals reviewed

AJG Subject	Journals
General management, Ethics, Gender, and Social Responsibility	76
Innovation	33
Marketing	70
Strategy	17
Total	196

For the systematic review, I performed my search on the SCOPUS database. The initial search string was "platform," focusing on article titles, keywords, and abstracts (Hänninen, 2020; Thomas et al., 2014; Yang et al., 2020). As the term "platform" is generic and widely used in different contexts, a larger number of results (924,083) were generated. Applying the search boundary (selected CABS-ranked journals) returned 3,388 results, with particularly strong growth from 2010 onward (Figure 5).

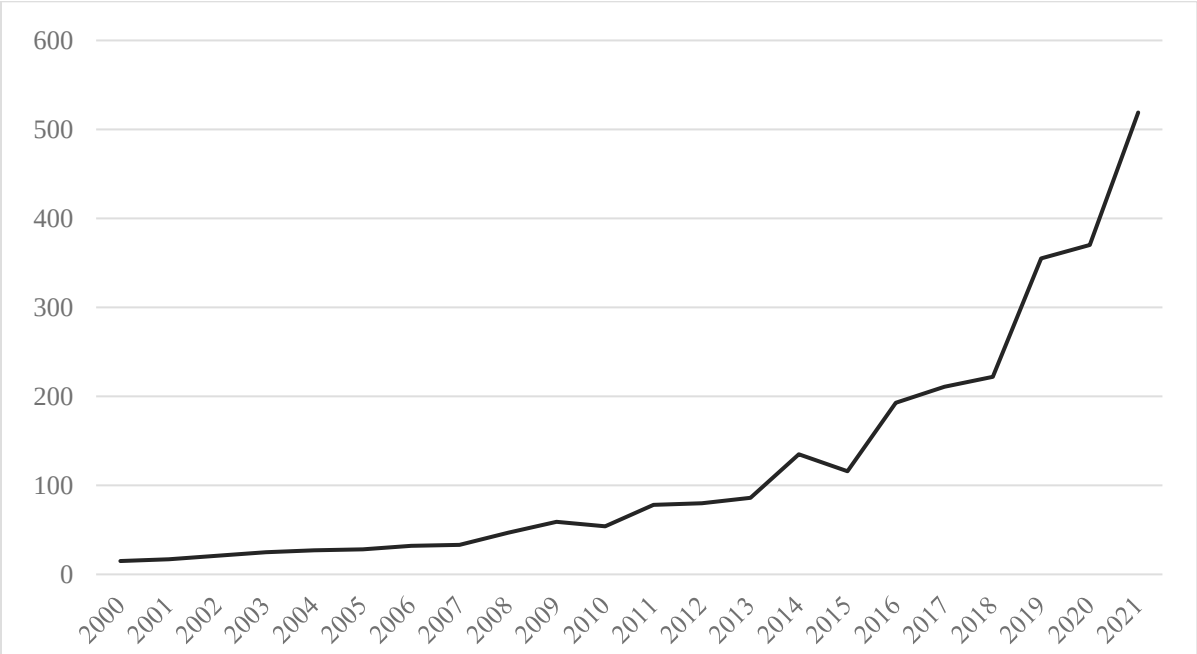


Figure 5: Annual scientific production: Documents by year (2000–2021).

Next, a range of qualifiers were included in the search according to the conceptual boundaries. Through testing and experimentation, I ensured that literature from the previously identified platform research streams was included in the search, including literature covering demand-side elements of value creation that reflected the perspectives of platform users. In the final search string (see Appendix 1), I searched in titles, abstracts, and keywords for the term "platform" and, within the complete article text, for any qualifiers (marketplace OR two-sided OR multi-sided OR complementor OR ecosystem OR intermediation OR intermediary OR retailing), up to and including mid-September 2022. This produced 1,857 results for further analysis.

All titles, keywords, and abstracts were examined to confirm their fit with the scope of the review. Following the conceptual boundaries of the market intermediary stream, the definition of platforms as "digital intermediaries that efficiently link external producers/sellers to consumers, thereby enabling value-creating interactions (…) to facilitate the exchange of goods, services, or social currency" (Cusumano, 2020; Parker et al., 2016, p. 5), and the transaction platform type, I excluded studies with a single-sided or single business perspective, such as those promulgated on social media marketing or by word of mouth. Also, articles at a generic, non-platform level or that mainly focused on value exchange in single-sided, single business, or dyadic perspectives, including articles in which a platform was related to a technical product platform rather than an intermediating function, were excluded. Further, I excluded knowledge-, and idea generation platforms, crowdfunding platforms, content platforms, and lending platforms. While these platforms may have transactional features, they differ in terms of transfer of ownership (e.g., in the case of idea and sharing platforms), complementor variety (e.g., in the case of lending platforms), and customer role (e.g., in the case of crowdfunding platforms where customers act as investors). Finally, I excluded studies on pure product platforms and platforms for supply chain management. These exclusions ensured a comparable set of platform contexts where value conceptualizations reside.

The remaining 207 articles were imported into the *Qiqqa PDF management software tool* for further data management, including article tagging and annotations. Additionally, I established a manual registration form in Excel. After reading all of the articles in detail, 24 articles were excluded due to lack of fit with the conceptual boundaries, and two were excluded due to wrong ISSN coding, resulting in a final sample of 181 articles (see Appendix 4). The sample was

spread across the four literature fields, with marketing accounting for 61 articles, strategy for 53 articles, management for 42 articles, and innovation for 25 articles (see Table 4). The top 25 list of journals accounted for more than 80% of the 181 articles, with *Electronic Markets*, *Journal of Economics and Management Strategy*, *Strategic Management Journal*, and *Journal of Business Research* having the largest number of publications (see Table 5).

TABLE 4

Sample per AJG subject area

AJG Subject	Articles	No. of Journals	Ratio Article/Journal
Marketing	61	70	0.87
Strategy	53	17	3.12
General Management, Ethics, Gender, and Social Responsibility	42	76	0.55
Innovation	25	33	0.76
Total	181		

TABLE 5

Journals with most publications among the sample

Journal name	Articles
Electronic Markets	20
Journal of Economics and Management Strategy	18
Strategic Management Journal	15
Journal of Business Research	10
Journal of Marketing	8
Industrial Marketing Management	7
Advances in Strategic Management	6
Long Range Planning	5
MIT Sloan Management Review	5
Research Policy	5
Creativity and Innovation Management	4
Harvard Business Review	4
International Journal of Research in Marketing	4
Journal of Management	4
Journal of Marketing Research	4
Strategy and Leadership	4
Technology Analysis and Strategic Management	4
Academy of Management Perspectives	3

International Review of Retail Distribution and Consumer Research	3
Journal of Management Studies	3
Journal of Product Innovation Management	3
Journal of Retailing and Consumer Services	3
Marketing Science	3
Technovation	3
California Management Review	2

I used the following thematic codes for manual coding: (1) definition of the platform, (2) unit of analysis, (3) type of study, (4) industry and market configuration, (5) country of data collection, (6) research design, data collection, and analysis method, (7) key concepts, (8) theories used, (9) conceptualizations of value, (10) implications, and (11) main findings. To improve interrater reliability (Wang & Chugh, 2014), a subset of the sample was independently read and coded by my supervisors based on the predefined themes. Any differences between my supervisors and myself concerning the interpretation of value conceptualizations were discussed, and articles were revisited until a common understanding was reached. As a final step, I generated a Bibtex export file from the SCOPUS database and imported the sample (n=181) into the *R software* (*The R Foundation*) with the "R Studio" interface and the selected "bibliometrix" package (Aria & Cuccurullo, 2017) to provide an overview of and identify any collaborative networks across the literature fields, similar to the work by Dahlander and Gann (2010).

4.1.1 Data analysis

All articles were analyzed to identify and categorize generic and platform-specific conceptualizations of value, including any conceptualizations that the original authors referred to as drivers, benefits, sources, means, and mechanisms of value creation, delivery, and capture, as well as sources of competitive advantage for any of the involved stakeholders. For digital platforms, stakeholders comprised either platform owners, sponsors or operators, suppliers, sellers (hereafter complementors), or customers (users).

I identified first-order concepts as terms used by the authors and then aggregated these into 15 main and four subcategories representing higher-level and more generic value conceptualizations (Tables 6–20 display identified value conceptualizations within each

category). Then, the value conceptualizations were organized according to the three value dimensions of a business model (Teece, 2010) and were thereby differentiated between value conceptualizations referring to (1) potential sources of value creation, (2) means of value delivery, focusing on use value, and (3) mechanisms of value capture, including exchange value for the (platform) firm (Bowman & Ambrosini, 2000; Eggert et al., 2018; Lepak et al., 2007). Thus, the list represents the most frequently mentioned conceptualizations in the platform literature that explicitly focus on value, grouped into overall (second order) value conceptualizations. It is therefore neither a complete nor exhaustive list of factors or elements that may provide opportunities for value creation, delivery, or capture, as the sole purpose was to shed light on key conceptualizations of value in the platform literature.

4.2 Results

4.2.1 Sources of value creation

Among the main sources of potential value creation found in the platform literature are network effects, complementors, economies of scale and scope, capabilities, core functionality, and customer-provided content. Platforms, and actors in their corresponding ecosystems, rely on specific mechanisms to enhance the value potential of these sources.

4.2.1.1 Network effects

Prior research has suggested that digital platforms are characterized by strong network effects (Evans, 2003b; Hagiu, 2007; Katz & Shapiro, 1985). Direct network effects (Chu & Manchanda, 2016; Cusumano, 2012; Gawer & Cusumano, 2014), also referred to as same-side network effects (Eisenmann et al., 2006; Wallbach et al., 2019; Yang et al., 2020), within-group network effects (Sun & Tse, 2009), and demand-side economies of scale (Gawer, 2014), arise when the possibility (Steiner et al., 2016) or benefit (McIntyre & Srinivasan, 2017) of user network participation increases with additional network users on the *same* side of the market (Wallbach et al., 2019).

Indirect network effects, also referred to as indirect network externalities (Evans, 2003a), cross-side network effects (Altman & Tushman, 2017; Cusumano, 2012; Hagiu, 2014), cross-platform network effects (Boudreau & Jeppesen, 2015; Zhao et al., 2019), cross-network effects

(Chu & Manchanda, 2016; Fang et al., 2015), cross-network externalities (Cennamo, 2018), cross-group externalities (Loux et al., 2020), cross-group network effects (Sun & Tse, 2009), and demand-side economies of scope, are characterized by situations in which different sides of a market benefit or gain value from the size or characteristics of the *other* side of the market (Rochet & Tirole, 2003; Yang et al., 2020).

The platform literature discusses how network effects create value through either reach (where the size of the networks on both sides enables reach and matching) or value-creating interactions (between users and/or complementors).

The value of reach is strongly related to indirect network effects whereby users (buyers) in an interdependent relationship place more value on platforms that include a large number of complementors (sellers) offering products on the platform, while complementors prefer platforms with large user bases (Altman & Tushman, 2017; Boudreau & Jeppesen, 2015; Zhao et al., 2019). This interdependency fuels a self-reinforcing feedback loop, exponentially increasing adoption from both sides (Gawer, 2014; Panico & Cennamo, 2020) almost *ad infinitum* (Cusumano, 2012). For example, Zhu and Iansiti (2012) found evidence for strong indirect network effects in the game console market, and Chu and Manchanda (2016) found asymmetric indirect network effects in a longitudinal study of Taobao.com.

Value-creating interactions stem from *both* indirect and direct network effects. This builds on the assumption that the greater the number of platform users, the greater the users' opportunities to benefit from interacting with other users (Cennamo, 2018). However, as Sun and Tse (2009) argued, consumer benefits may depend on *who* is using the network, not just on valuations of the size of the network. Examples include instant-messaging networks and marketplaces like Taobao.com, where complementor adoption is influenced by other complementors (Chu & Manchanda, 2016).

TABLE 6

Conceptualizations of "network effects" in the platform literature

Category	First-order concepts	Authors
Network effects	Network effects, network externalities, indirect network effects, cross-side network effects, cross-platform network effects, cross-market network effects, cross-network effects, cross-network externalities, cross-externalities, cross-group network effects, indirect network externalities, demand-side economies of scope (indirect network effects), direct network effects, same-side network effects, demand-side economies of scale (direct network effects), within-group network effects, two-sided network effects, increasing returns from network size, increasing returns from scale, user demand acceleration due to increasing returns, third-party developer strategy, virtuous cycle between complements and installed user base, network intensity, customer network effects, mixed-side network effects, network benefits	Altman and Tushman (2017); Biglaiser et al. (2019); Blondel and Edouard (2015); Boudreau and Jeppesen (2015); Cennamo (2018, 2021); Cennamo and Santalo (2013); Chu and Manchanda (2016); Cusumano (2012); Dell'Era et al. (2021); Denning (2021); Eisenmann et al. (2006); Eisenmann (2008); **Evans (2003b); Fang et al. (2015); Gawer (2014, 2021, 2022); Gazé and Vaubourg (2011); Gregory et al. (2021); **Hagiu (2007); Hagiu (2009, 2014); Halaburda and Yehezkel (2019); **Katz and Shapiro (1985); Lee (2014); Loux et al. (2020); McIntyre and Srinivasan (2017); McIntyre et al. (2020); Muzellec et al. (2015); Nuccio and Guerzoni (2019); Panico and Cennamo (2020); **Parker and Van Alstyne (2005); Rietveld and Schilling (2021); **Rochet and Tirole (2003); Rohn et al. (2021); Sridhar et al. (2011); Steiner et al. (2016); Suarez and Kirtley (2012); Sun and Tse (2009); **Tiwana et al. (2010); Trabucchi et al. (2020); Tura et al. (2018); Wallbach et al. (2019); Yang et al. (2020); Zhao et al. (2019); Zhu and Iansiti (2012)

** Not included in review sample (n=181): originates from the theoretical foundation covered in this thesis.

4.2.1.2 Complementor-provided value

Complementors, commonly conceptualized (see Table 7) as third-party complementors (McIntyre & Srinivasan, 2017; Miric et al., 2019), third-party producers (Hagiu, 2009), or third-party sellers (Jiang et al., 2011; Ritala et al., 2014; Zhu, 2019), are an important source of value due to the content they provide (Boudreau & Jeppesen, 2015; Cusumano, 2012; Ozalp et al., 2018; Wen & Zhu, 2019). By utilizing the size of the complementor network as well as the complementors' innovative capabilities, platforms facilitate the generation of complementary innovations at scale and of higher quality (Berman et al., 2018; Braune & Dana, 2022; Healey & Moe, 2016; McIntyre et al., 2020). Complementors improve value delivery to customers (Parker et al., 2016), serve as a source of legitimacy (Taeuscher & Rothe, 2021), and facilitate value capture for the platform through efficiency improvements—for example, reduced inventory risk (Hänninen et al., 2019).

According to the literature, the value of complementors is strongly related to network effects. A larger number of platform users implies a larger market, potentially increased demand for the complementors' products (Loginova, 2022), and, in line with indirect network effects, the availability of complementors and their products increases accordingly (Gawer & Cusumano, 2014; Panico & Cennamo, 2020). On the downside, however, a larger number of complementors implies more competition, which may lead to negative direct network effects among the complementors (Saadatmand et al., 2019), reducing their incentive to innovate (Hagiu, 2014). In addition, platform owners occasionally offer their own complementary offerings to appropriate more value (Toh & Agarwal, 2022), adding even more competition to the platform market (Lan et al., 2019; Zhu & Iansiti, 2012). Doing so may also enhance platform value to users and increase awareness about and the size of the market (Chi et al., 2022), benefiting both platform owners and complementors (Cennamo, 2018). However, complementors seem to adapt to any competitive situation and use innovation and product offerings strategically across markets to secure their profits (Wang & Miller, 2020; Wen & Zhu, 2019).

TABLE 7

Conceptualizations of "complementors" in the platform literature

Category	First-order concepts	Authors
Complementors	Complementors, external complementors, third-party complementors, third-party complements, third-party producers, third-party providers, producers of complementary goods, complementary products, producers, independent providers of complementary goods, providers of adjacent products or services, complementary innovations by third-party firms, outbound innovation, external developers, third-party developers, third-party firms, third-party sellers, sellers, independent sellers, providers of third-party services, providers of complements, third-party suppliers of complements, complementary business partners, value creation partners of platform owners, a wide range of small firms	Berman et al. (2018); Boudreau and Jeppesen (2015); Braune and Dana (2022); Cennamo (2018, 2021); Chi et al. (2022); Cusumano (2012); Denning (2021); Eisenmann (2008); Etro (2021); Gawer (2021, 2022); Gawer and Cusumano (2014); Hagiu (2009, 2014); Healey and Moe (2016); Hein et al. (2019b); Inoue and Tsujimoto (2018); Jacobides et al. (2018); Jiang et al. (2011); Jiang and Zou (2020); Karhu and Ritala (2020); Lan et al. (2019); Loginova (2022); McIntyre and Srinivasan (2017); McIntyre et al. (2020); Miric et al. (2019); Nambisan and Baron (2019); Ozalp et al. (2018); Panico and Cennamo (2020); Rietveld and Schilling (2021); Ritala et al. (2014); Suarez and Kirtley (2012); Saadatmand et al. (2019); Taeuscher (2019); Taeuscher and Rothe (2021); Tavalaei and Cennamo (2020); Teece (2018b); Thomas et al. (2014); Toh and Agarwal (2022); Trabucchi and Buganza (2020); Trabucchi et al. (2021a); Veisdal (2020); Wan and Chen (2019); Wang and Miller (2020); Wen and Zhu (2019); Winter et al. (2018); Wulfert et al. (2022); Zhang and Tang (2019); Zhu (2019)

4.2.1.3 Size and economies of scale

Value conceptualizations related to scale (see Table 8) include scale advantages (Cusumano, 2012; Edelman, 2014), benefits from scale (Iansiti & Euchner, 2018), and economies of scale (Gawer & Cusumano, 2014; Ordanini & Pol, 2001; Sun & Tse, 2009), providing value capture opportunities for the platform through increased efficiencies (profitability) or market power (Eisenmann et al., 2011; Hossain & Morgan, 2013; Zhu & Liu, 2018). Value from scale is based on either size (a large user base) related to reach (Cusumano & Gawer, 2002; Healey & Moe, 2016; Sriram et al., 2015) or growth and scale-up capabilities (Abdelkafi et al., 2019; Gawer & Henderson, 2007).

In line with traditional markets, platform companies can increase efficiencies (increase margins or offer lower prices) by utilizing global networks (Kandampully, 2003), aggregating purchases (volume discounts) (Ordanini & Pol, 2001), and employing scale benefits from fixed costs operations (Eisenmann et al., 2011; Eisenmann et al., 2006; Porter, 2001). Moreover, platform companies may also utilize the division of innovative labor or assets beyond the boundaries of the firm and its supply chain (Gawer & Cusumano, 2014), increasing the value of supply-side economies of scale. However, platforms are unique in turning demand-side economies of scale into supply-side benefits of efficiency due to network effects (Eisenmann et al., 2011). Here, size facilitates reach through improved matching of supply and demand.

The other value from scale relates to platform growth. As the market and competition grow, the ability to handle complexity and scale-up operations increases in importance (Abdelkafi et al., 2019; Iansiti & Euchner, 2018), and platforms can potentially scale faster and at a lower cost than traditional (linear) business models (Denning, 2021). This is particularly important in a winner-takes-all market (McIntyre et al., 2020) that tends to converge on a single, dominant platform due to network effects (Basaure et al., 2020; Hossain & Morgan, 2013). Google, Apple, eBay, Uber, and Airbnb are famous examples of companies that have successfully managed scale-up operations but, to date, they are only a minority of the many companies that have tried to scale their operations successfully with a platform model—and failed (Yoffie et al., 2019). Recent findings have also suggested that loyalty or strong ties among users may be more relevant considerations in creating value than the total number of users in the network (McIntyre et al., 2021).

TABLE 8

Conceptualizations of "size and economies of scale" in the platform literature

Category	First-order concepts	Authors
Size and economies of scale	Scale, scale advantages, benefits of scale, economies of scale, demand-side economies of scale, demand- or supply-side scale economies, size, total size, gross size, size of network, installed base, installed base size, large user base, reach, growth, scale-up, market share	Abdelkafi et al. (2019); Basaure et al. (2020); Cenamor et al. (2013); Cennamo (2018, 2021); Chu and Manchanda (2016); Clauss et al. (2019); Cusumano (2012); Cusumano and Gawer (2002); Cutolo et al. (2021); Dell'Era et al. (2021); Denning (2021); Edelman (2014); Eisenmann et al. (2011); Fürstenau et al. (2019); Gawer (2022); Gawer and Cusumano (2014); Gawer and Henderson (2007); Greve and Song (2017); Healey and Moe (2016); Hokkanen et al. (2021); Hossain and Morgan (2013); Hänninen and Smedlund (2021); Iansiti and Euchner (2018); Inoue and Tsujimoto (2018); Kandampully (2003); Karhu and Ritala (2020); Khanagha et al. (2020); Laczko et al. (2019); Landsman and Stremersch (2011); McIntyre and Srinivasan (2017); McIntyre et al. (2021); McIntyre et al. (2020); Ordanini and Pol (2001); Porter (2001); Rohn et al. (2021); Spinello (2005); Sriram et al. (2015); Sun and Tse (2009); Trabucchi et al. (2021b); Vakeel et al. (2021); Wen and Zhu (2019); Wulfert et al. (2022); Zhu (2019); Zhu and Iansiti (2012); Zhu and Liu (2018)

4.2.1.4 Economies of scope

In creating and capturing value, platform companies also take advantage of economies of scope, in supply and/or demand (Gawer, 2014; Tee & Gawer, 2009). However, economies of scope are less platform-dependent, and generic sources of value, such as knowledge or resources, can be used to deliver value through, e.g., increased quality, increased variety of product offerings across product categories, and/or capturing value through diversification and new revenue streams (Broekhuizen et al., 2019; Eisenmann et al., 2011; Parmentier & Gandia, 2017).

The supply-side platform literature describes how value from scope is created by the utilization of excess capacity (Eckhardt et al., 2019; Perren & Kozinets, 2018) or through efficiencies in resource utilization (Ritala et al., 2014), which transcends the traditional focus of capacity planning (Porter, 2001). Examples include Airbnb, which creates new markets based on

previously untapped resources (Täuscher & Laudien, 2018); Uber, which employs excess (driver) capacity to support supply-side extension; Uber Eats (Trabucchi et al., 2021d), Salesforce, and SAP, which utilize thousands of partners and app developers on their platforms (Hein et al., 2020; Miric et al., 2019); and Amazon, which has diversified into highly profitable cloud services (AWS) by utilizing server capacity (Nuccio & Guerzoni, 2019).

The demand-side platform literature focuses on the value of utilizing information about customers (as a digital asset and source of value) and applying the capacity of this information to differentiate and serve (value delivery) heterogeneity in demand, generating new revenue streams (Khanagha et al., 2020; Laczko et al., 2019). For example, Amazon utilizes customer data to both drive cross-selling and successfully expand their offerings with additional (Prime) services (Hänninen et al., 2019). Uber generates new revenue streams by trading user insights and advertising revenues (Shaughnessy, 2016; Trabucchi & Buganza, 2020), and Otto.de uses shared family accounts and wallets to provide unique channel-product-customer combinations (Broekhuizen et al., 2019).

TABLE 9

Conceptualizations of "economies of scope" in the platform literature

Category	First-order concepts	Authors
Economies of scope	Economies of scope, economies of scope in supply (innovation) and/or in demand, economies of scope for complementors, excess capacity, diversification into new business areas, extension, marginal cost of launching application service, efficiency in resource utilization, utilization of resources and competences more efficiently, generation of separate revenue streams, differentiation advantage, monetization of slack resources, scope expansion, supply-side expansion	Braune and Dana (2022); Broekhuizen et al. (2019); Cennamo (2021); Eckhardt et al. (2019); Eisenmann et al. (2011); Gawer (2014, 2021, 2022); Laczko et al. (2019); McIntyre et al. (2020); Nuccio and Guerzoni (2019); Parmentier and Gandia (2017); Perren and Kozinets (2018); Porter (2001); Rangaswamy et al. (2020); Ritala et al. (2014); Shaughnessy (2016); Sur et al. (2019); Tavalaei and Cennamo (2020); Tee and Gawer (2009); Trabucchi and Buganza (2020); Trabucchi et al. (2021d); Täuscher and Laudien (2018)

4.2.1.5 Capabilities

Capabilities apply to both platforms and complementors, and are conceptualized into two main categories in the platform literature: dynamic capabilities, as generic capabilities for utilizing opportunities for innovation (Helfat & Raubitschek, 2018; Teece, 2017); and platform-specific capabilities and practices, which assume more operational forms. These forms include managing users and exchanges, and increasing platform performance (Cenamor et al., 2019; Perks et al., 2017; Ramaswamy & Ozcan, 2018a), although customer orientation, big data (analysis), relationship management and governance, and pricing capabilities are covered more extensively.

Customer orientation is conceptualized, on the one hand, as the capability to utilize customer insights and analysis to improve value delivery to customers (Chakravarty et al., 2014; Clauss et al., 2019; Kollmann et al., 2020; Ramaswamy, 2020) and, on the other, as capabilities for exploring and facilitating interactions and interactive experiences (co-created with customers). For example, Rangaswamy et al. (2020) argued that data and customer insights can be used for user acquisition and engagement, but facilitated interactions may also enhance customer experience, relevance, and empowerment (Ramaswamy, 2020; Reinartz et al., 2019).

Big data capabilities encompass data generated as a by-product of user interaction on a platform (Biglaiser et al., 2019), including data about transactions, user behavior, complementor behavior (including third-party data), and the subsequent utilization of such data (Hein et al., 2019a; Hänninen et al., 2018; Lehdonvirta et al., 2019). Big data in itself might have value as a resource, as exemplified by Uber's trading of data as a new revenue stream, described above (Trabucchi & Buganza, 2020), but most research in this area has addressed big data from a capability perspective, particularly how big data can be employed to provide value to both the platform and its users (Casadesus-Masanell & Campbell, 2019; Edelman, 2014; Hein et al., 2020). Examples include using data and analytics to adapt service offerings and strengthen the platform's value proposition (Willing et al., 2017) through, for example, personalization and customization (Gregory et al., 2021; Hänninen et al., 2019; Hänninen et al., 2018; Zhang et al., 2022), new product discovery (Zhu & Liu, 2018), innovation (Nuccio & Guerzoni, 2019), and entering new markets (Gawer, 2022; Toh & Agarwal, 2022).

Conceptualizations of relationship management and governance capabilities include the configuration and orchestration of the ecosystem or network (Bazarhanova et al., 2019; Eloranta & Turunen, 2016; Laczko et al., 2019; Perks et al., 2017), the coordination and alignment of players and activities (Boudreau, 2017; Cenamor et al., 2019; Hagel Iii et al., 2008; Jacobides et al., 2018), governance mechanisms and boundary resources (Hein et al., 2020; Wulfert et al., 2022), the mitigation of moral hazards (Lehdonvirta et al., 2019; Roger & Vasconcelos, 2014), and the shaping of innovations by complementors (Wen & Zhu, 2019). These capabilities exceed the orchestration of supply chains by establishing and nurturing communities and transforming complementors' resources into valuable assets (Alt & Zimmermann, 2019; Eloranta & Turunen, 2016). Platform owners use governance policies to control access to and shape value creation activities through either managerial procedures or algorithms operating on interaction data (Curchod et al., 2020; Zhang & Tang, 2019), as the platform, unlike traditional value chains, lacks traditional buyer–supplier contracts (Toh & Agarwal, 2022). Such policies or rules also mitigate some of the challenges of trust, quality, and privacy (Wan & Chen, 2019). For example, Amazon actively shares its infrastructure with its complementors (and competitors) and has been successful in building a trusted marketplace through collaboration, thereby making it a source of value creation for the entire ecosystem (Ritala et al., 2014).

Finally, pricing capability is related to value creation (Cennamo, 2021; Choi & Zennyo, 2019; Hagiu, 2009; Roger & Vasconcelos, 2014), primarily as a means of coordination between each side of the platform (Parker & Van Alstyne, 2005; Rochet & Tirole, 2003). This includes price adjustment (Spulber, 2019), price differentiation (Rangaswamy et al., 2020), and price discrimination (Nuccio & Guerzoni, 2019). Because the platforms serve as intermediaries, they make price and output determination endogenous (Spulber, 2019) and price competition indirectly controlled. This affects growth but also the profitability of the platform and its complementors. For example, platforms effectively charge a higher fee for the side that increases demand more strongly in response to the other side's growth, whereas a discount is offered to the more price-sensitive side to stimulate network effects and enhance the total number of transactions among users (Choi & Zennyo, 2019; Eisenmann et al., 2006). Even among small customer groups, platform companies are able to discriminate prices (Nuccio &

Guerzoni, 2019) or optimize supply in response to demand fluctuations (e.g., Airbnb) to maximize profits and limit competitors' pricing power (Zervas et al., 2017).

TABLE 10

Conceptualizations of "capabilities" in the platform literature

Category	First-order concepts	Authors
Capabilities	Capabilities, internal organization capabilities, digital platform capabilities, set of specific practices, scoped capabilities, dynamic capabilities, leveraging architectures and networks	Berman et al. (2018); Cenamor et al. (2019); Eloranta and Turunen (2016); Furman et al. (2017); Helfat and Raubitschek (2018); McIntyre and Srinivasan (2017); **Parker et al. (2016); Perks et al. (2017); Ramaswamy (2020); Ramaswamy and Ozcan (2018a); Rangaswamy et al. (2020); Teece (2017); Zeng and Glaister (2016); Zhang and Tang (2019)
Customer orientation	Customer orientation, customer insights, customer insights and analysis, customer-centric view of business models, interaction orientation, exploration and facilitation of interactions, attraction of users, simplification of user co-creation, co-creation of interactive experiences with customers, consumer decision processes, user information	Chakravarty et al. (2014); Clauss et al. (2019); Eloranta and Turunen (2016); Hänninen (2020); Kollmann et al. (2020); Liu et al. (2020); Ramaswamy (2020); Ramaswamy and Ozcan (2018a); Rangaswamy et al. (2020); Reinartz et al. (2019); Yang and Wang (2013); Yang et al. (2020); Zeng and Glaister (2016)
Big data analysis	Big data, data streams, data about transactions, data about behavior, data-as-output, utilization of customer data, user-generated big data, company data and third-party data, digital trace data, data exploitation, platform AI capability	Biglaiser et al. (2019); Casadesus-Masanell and Campbell (2019); Edelman (2014); Gawer (2022); Gregory et al. (2021); Hein et al. (2019a); Hänninen (2020); Hänninen et al. (2018); Kenney et al. (2019); Lehdonvirta et al. (2019); Nuccio and Guerzoni (2019); Rangaswamy et al. (2020); Trabucchi and Buganza (2020); Trabucchi and Buganza (2021); Trabucchi et al. (2021c); Trabucchi et al. (2021d); Willing et al. (2017); Zhang et al. (2022); Zhu and Liu (2018)

Relationship management and governance capabilities	Relationship management, governance, governance mechanisms, governance rules, governance and rules, ecosystem orchestration, network orchestration, network configuration, mitigation of moral hazards, mobilization of players, coordination of agents, coordination of activities in the ecosystem, shaping of innovation directions of complementors, relationships, external relationships with complementors, relationships with external complementors, ecosystem relationships, interorganizational relationships, direct and affiliate relationships, cooperative relationships, coopetition relationships, coopetition, creation of common environment for collaboration, customer relationship management, forging of relationships with stakeholders, co-shaping of expectations, roles in value networks, alignment, organizational interaction with boundary resources	Adner (2017); Alt and Klein (2011); Altıntaş et al. (2019); Altman and Tushman (2017); Bazarhanova et al. (2019); Berman et al. (2018); Boudreau (2017); Cenamor et al. (2019); Curchod et al. (2020); Dell'Era et al. (2021); Eloranta and Turunen (2016); Gawer (2022); Gawer and Cusumano (2008b); Hagel Iii et al. (2008); Hagiu (2014); Hein et al. (2020); Jacobides et al. (2018); Kandampully (2003); Kretschmer et al. (2020); Laczko et al. (2019); Lehdonvirta et al. (2019); Li et al. (2018); McIntyre and Srinivasan (2017); Nuccio and Guerzoni (2019); Parmentier and Gandia (2017); Pellizzoni et al. (2019); Perks et al. (2017); Pousttchi and Gleiss (2019); Ramaswamy (2020); Ritala et al. (2014); Roger and Vasconcelos (2014); Sun and Tse (2009); Teece (2017); Toh and Agarwal (2022); Wang and Miller (2020); Wen and Zhu (2019); Winter et al. (2018); Wulfert et al. (2022); Zhang et al. (2020)
Platform pricing	Platform pricing, price adjustment, price differentiation, price discrimination, taxation of transactions	Cabral (2019); Casadesus-Masanell and Llanes (2015); Casey and Töyli (2012); Choi and Zennyo (2019); Choi et al. (2019); Cutolo et al. (2021); Eisenmann et al. (2006); Eisenmann (2008); Gawer (2021); Hagiu (2009); Hałaburda and Yehezkel (2016); Katz (2019); Lee (2014); Muzellec et al. (2015); Nuccio and Guerzoni (2019); Rangaswamy et al. (2020); Rietveld and Schilling (2021); Roger and Vasconcelos (2014); Rohn et al. (2021); Spulber (2019); Trabucchi and Buganza (2020); Zervas et al. (2017)

** Not included in review sample (n=181): originates from the theoretical foundation covered in this thesis.

4.2.1.6 Benefits of core functionality

Platforms rely on a core functionality that facilitates transactions. This entails transactional benefits, such as transaction capacity, servitization, and increased security of payments (Cennamo, 2018; Hein et al., 2019a; Yang et al., 2020), and exchange-related use value, such as ease of use, reach, matching supply and demand, and low search costs (Caldieraro et al., 2018; Hein et al., 2020). Platforms also offer functions that increase productivity (efficiencies) or simplify innovation, production, management, and the communication of content produced

by complementors, and facilitate exchanges between parties that would otherwise not transact (Braune & Dana, 2022). For example, platform companies increase complementors' efficiencies by providing a business infrastructure and boundary resources (APIs and SDKs), yielding efficient access to markets (Nambisan & Baron, 2019; Ordanini & Pol, 2001; Tavalaei & Cennamo, 2020). Core functionality also facilitates interactions across users (McIntyre et al., 2020), affecting the social value gained through interactions with other participants or with the platform itself (Täuscher & Laudien, 2018).

TABLE 11

Conceptualizations of "core functionality" in the platform literature

Category	First-order concepts	Authors
Core functionality	Core functionality, core functioning of the technology, core components, platform core, value-creating mechanisms of transactions, stable core and a flexible periphery, core and boundary resources, facilitating interactions across user sides, mediation of interactions among distinct user groups, interactions, platform interactions, core functions, technical benefits, digital platform interface, technical core, application enablement, core architecture, mediation of interactions among distinct user groups	Braune and Dana (2022); Broekhuizen et al. (2019); Cennamo (2018, 2021); Clauss et al. (2019); Denning (2021); Gawer (2021, 2022); Greve and Song (2017); Hein et al. (2019a); Hein et al. (2019b); Karhu and Ritala (2020); Kenney et al. (2019); McIntyre et al. (2021); McIntyre et al. (2020); Reinartz et al. (2019); Shaughnessy (2016); Tavalaei and Cennamo (2020); Thomas et al. (2021); Toh and Agarwal (2022); Täuscher and Laudien (2018); Wulfert et al. (2022); Yang et al. (2020); Zeng and Glaister (2016)

4.2.1.7 Customer-provided value

Similar to complementor-provided value, the platform literature also considers customers to be content providers who create value. Because a platform not only functions as a marketplace for transactions but also has the characteristics of a community, it allows platform users to interact (Kim & Kim, 2022). Conceptualizations (see Table 12) include reviews and the rating of products (Lamberton & Stephen, 2016; Trabucchi et al., 2020), consumer crowdsending (Wichmann et al., 2022), buyer-generated product knowledge (Chan et al., 2022), and knowledge co-creation (Ramaswamy & Ozcan, 2018b). These conceptualizations describe the customer's own contribution of products and services, engagement in discussions, and uploading of pictures and videos in return for social identity and status, a sense of belonging,

or monetary rewards (Wichmann et al., 2022). The platform reduces transaction costs (search costs) and establishes a market with social interactions among its users (Kim & Kim, 2022).

For example, customer reviews and ratings—i.e., content provided by the customers—are extensively used by Uber, Airbnb (Lehdonvirta et al., 2019), TripAdvisor (Ramaswamy & Ozcan, 2018b), and eBay (Curchod et al., 2020) to reinforce network effects, increase customer value, or capture value through insights obtained about customer preferences to improve the platform's functionality and offerings (Jiang et al., 2011), or in market entry (Zhu & Liu, 2018).

Through platform functions, customer-provided content is also utilized to signal quality and build trust (Ladd, 2022; Lehdonvirta et al., 2019; Täuscher & Laudien, 2018), which can in turn positively affect sales and may lead to price premiums (Greve & Song, 2017; Lamberton & Stephen, 2016). For example, Taobao use reputation feedback systems to verify seller quality, thereby building trust in both the complementor and the platform itself (Zhang et al., 2012).

TABLE 12

Conceptualizations of "customer-provided content" in the platform literature

Category	First-order concepts	Authors
Customer-provided content	Reviews, consumer reviews, user reviews, ratings, consumer crowdsending, consumer-generated content, online consumer reviews, buyer-generated product knowledge, generation and sharing of high-quality product knowledge, knowledge co-creation, co-creation, complements reviews	Chan et al. (2022); Kim and Kim (2022); Ladd (2022); Lamberton and Stephen (2016); Lehdonvirta et al. (2019); Ramaswamy and Ozcan (2018b); Rietveld and Schilling (2021); Trabucchi et al. (2020); Täuscher and Laudien (2018); Wichmann et al. (2022); Zhang et al. (2012); Zhu and Liu (2018)

4.2.2 Means of value delivery

Among the value conceptualizations in the platform literature that can be considered a means of value delivery is the value of reach and matching supply and demand, the price advantage, the variety and quality of products delivered, the platform's quality, the perceived trust, and the convenience of using the platform.

4.2.2.1 Matching supply and demand

One of the fundamental means of value delivery of marketplace platforms is the matching of supply and demand, also conceptualized in the platform literature (see Table 13) as matching the different sides of the platform (Trabucchi & Buganza, 2021; Trabucchi et al., 2021d), matching users (Zhao et al., 2019), efficiently matching providers and users (Eckhardt et al., 2019), matching supply and demand (Kollmann et al., 2020), matching demand with supply (Cennamo, 2021), matching buyers and sellers (Ladd, 2022), and matchmaking (Teece et al., 2022; Trabucchi & Buganza, 2021).

Platforms provide a structure "that take[s] advantage of low search costs afforded by digital technologies" (Gawer, 2022, p. 5) to lower coordination costs and enable search and matching (Kretschmer et al., 2020), match previously unconnected markets (Täuscher & Laudien, 2018), or reach new markets or customer segments (Hokkanen et al., 2021; Hänninen & Smedlund, 2021; Loginova, 2022) at a lower cost than previously possible (Trabucchi et al., 2021d).

TABLE 13

Conceptualizations of "matching supply and demand" in the platform literature

Category	First order concepts	Authors
Matching supply and demand	Matching users, matching buyers and sellers, efficiently matching, matching demand with supply, matching heterogenous demand with dedicated supply, facilitating matching, matchmaking, enabling e-commerce, facilitating exchange, facilitating economic interactions between two sets of agents	Cennamo (2021); Eckhardt et al. (2019); Gawer (2022); Kollmann et al. (2020); Ladd (2022); Ordanini and Pol (2001); Rohn et al. (2021); Sriram et al. (2015); Teece et al. (2022); Trabucchi and Buganza (2021); Trabucchi et al. (2021d); Täuscher and Laudien (2018); Yang and Wang (2013); Zhao et al. (2019)

4.2.2.2 Low price

Different from pricing as described in the previous section, another value conceptualization of price in the platform literature concerns low price as a means of value delivery to customers (Eckhardt et al., 2019; Edelman, 2014; Jiang et al., 2011; Rangaswamy et al., 2020; Reinartz et al., 2019). With alternative platforms or many complementors on each, competition increases

and drives down the price of comparable products—for the benefit of customers. For example, Uber and Lyft riders frequently switch between the two platforms to obtain lower prices (Eckhardt et al., 2019), and Airbnb's entry into the accommodation market has resulted in both increased choice options and lower hotel prices for customers (Zervas et al., 2017). Lower prices are, however, also a result of scale efficiencies (Reinartz et al., 2019). For example, Amazon utilizes scale efficiencies from size and fixed costs operations in combination with zero sales fees to offer lower prices than its own complementors on the platform, often in combination with competitive or free shipping (Jiang et al., 2011).

TABLE 14

Conceptualizations of "low price" in the platform literature

Category	First-order concepts	Authors
Low price	Price, lower price, market prices	Eckhardt et al. (2019); Edelman (2014); Etro (2021); Hokkanen et al. (2021); Jiang et al. (2011); Rangaswamy et al. (2020); Reinartz et al. (2019); Zervas et al. (2017)

4.2.2.3 Product variety

Product variety is a characteristic of the content produced and offered (i.e., in a broader sense) by complementors and/or customers. Conceptualizations include product variety (Belleflamme & Peitz, 2019; Casadesus-Masanell & Llanes, 2015; Chu & Manchanda, 2016), assortment or variety of options (Mathmann et al., 2017; Steiner et al., 2016), and complementary products, complements, and complement variety (Cenamor et al., 2013; McIntyre et al., 2020; Sun et al., 2016).

A greater variety of products (or services) provided by complementors (Cenamor et al., 2013; McIntyre & Srinivasan, 2017; Zhu & Iansiti, 2012) permits better matching with broader sets of customers' heterogeneous preferences (Cennamo, 2018). For example, game console platform adoption is driven by the availability of complementary products (Cenamor et al.,

2013; Steiner et al., 2016). Mathmann et al. (2017) showed that large assortments of products in online retail are engaging and increase perceptions of value, particularly among consumers who compare and evaluate available options. Also, in the accommodation market, consumers benefit from higher variety and complementors benefit from higher demand due to variety-seeking consumers (Zervas et al., 2017). High variety also potentially means less competition among complementors, which could enable higher rent extraction (Hagiu, 2009). However, higher variety could also have a negative impact because of the increased noise, uncertainty, and confusion it might introduce to consumers' decision-making process (Boudreau & Jeppesen, 2015; Trabucchi et al., 2021b).

TABLE 15

Conceptualizations of "product variety" in the platform literature

Category	First-order concepts	Authors
Product variety	Product variety, variety, assortment, assortment variety, variety of options, application variety, complementary product variety, wide portfolio of complementary products, complementary product availability, complements' variety, variety of complementary products and services, availability of complements, variety of distributors, broad range of offerings	Alt and Zimmermann (2019); Belleflamme and Peitz (2019); Casadesus-Masanell and Hałaburda (2014); Cenamor et al. (2013); Cennamo (2018, 2021); Cennamo and Santalo (2013); Chu and Manchanda (2016); Cutolo et al. (2021); Etro (2021); Hagiu (2009); Hokkanen et al. (2021); Hänninen and Smedlund (2021); Karhu and Ritala (2020); Mathmann et al. (2017); McIntyre and Srinivasan (2017); McIntyre et al. (2020); Rohn et al. (2021); Steiner et al. (2016); Sun et al. (2016); Toh and Agarwal (2022); Vakeel et al. (2021); Zervas et al. (2017); Zhu and Iansiti (2012)

4.2.2.4 Product and platform quality

The platform literature describes two types of quality. The first type, product quality, is a characteristic of the content produced and delivered to customers. This is conceptualized (see Table 16) as quality products (Hagiu, 2009; Nuccio & Guerzoni, 2019; Zhu & Iansiti, 2012), quality offerings in the marketplace (Caldieraro et al., 2018), and the quality of complements (Cennamo, 2018; Steiner et al., 2016). The second type relates to platform quality (McIntyre et al., 2020) and the quality of customer experience (Eckhardt et al., 2019) and is a characteristic of users' interactions with a platform.

Product quality captures how much value customers derive from consuming or using a product. The more high-quality products present on the platform, the greater the value to users from using the platform and its offerings (Cennamo, 2018). This increases the overall reliability (Lee et al., 2018), profitability (Hagiu, 2009; Nuccio & Guerzoni, 2019), and competitive advantage of the platform (Tellis et al., 2009). For example, on video game platforms, the novelty and quality of products are important (Healey & Moe, 2016; Panico & Cennamo, 2020), and the overcrowding of platforms with options may lead to poor-quality products that can in turn negatively affect the user experience (McIntyre & Srinivasan, 2017; McIntyre et al., 2021). Additionally, having a large customer base does not necessarily protect incumbents from the market entry of new platforms offering higher-quality products and services (Zhu & Iansiti, 2012).

Platform quality refers to consumers' perception of the quality of the platform itself (McIntyre et al., 2020) and is strongly related to the experience of using the platform (Eckhardt et al., 2019). Research findings have indicated that perceived quality affects customer loyalty (Clauss et al., 2019) as well as market share or market dominance (McIntyre & Srinivasan, 2017).

TABLE 16

Conceptualizations of "quality" in the platform literature

Category	First-order concepts	Authors
Quality	Product quality, complements' quality, high quality of customer experiences from service providers, high-quality products or services, quality complements, complements' quality, quality of offerings in the marketplace, quality of merchandise, quality of the products, platform quality, platform interaction quality	Broekhuizen et al. (2019); Caldieraro et al. (2018); Casadesus-Masanell and Llanes (2015); Cennamo (2018); Eckhardt et al. (2019); Hagiu (2009, 2014); Hokkanen et al. (2021); Hänninen and Smedlund (2021); Karhu and Ritala (2020); Lee et al. (2018); McIntyre and Srinivasan (2017); McIntyre et al. (2020); Nuccio and Guerzoni (2019); Rietveld and Schilling (2021); Steiner et al. (2016); Tellis et al. (2009); Trabucchi et al. (2021b); Trabucchi et al. (2020); Zhu and Iansiti (2012)

4.2.2.5 Trust

Trust is a means of value delivery that facilitates interactions between platform users (Rangaswamy et al., 2020) or between users and the platform company (Clauss et al., 2019;

Täuscher & Laudien, 2018; Zervas et al., 2017). Here, we can find conceptualizations of trustworthiness, consumer trust, trust in the exchange (Altıntaş et al., 2019; Perren & Kozinets, 2018; Zhang et al., 2012), relationship- and trust-building mechanisms (Lehdonvirta et al., 2019; Xiao et al., 2019), as well as confidence, honesty, and distrust (Caldieraro et al., 2018; Curchod et al., 2020; Lehdonvirta et al., 2019).

As trust is a generic value element that is not unique to platforms, the difference lies in how trust is operationalized in a platform context (Eckhardt et al., 2019). Because platform markets are often characterized by interactions between strangers, customers cannot directly experience products or sellers (Kim & Kim, 2022), and buyers and sellers occupy roughly equivalent positions in the network (Perren & Kozinets, 2018)—incentivizing trustworthy behavior and building trust in the exchange thus become crucial. For example, in the case of Etsy.com, the primary differentiating function is the augmentation of trust between buyers and sellers (Ladd, 2022). Platform companies therefore use several means to regulate and build trust among platform participants, including registration, rating systems, and compliance monitoring (Alt & Zimmermann, 2019; Caldieraro et al., 2018). They further build trust through community management, content curation (listings), and conflict resolution programs, supported by platform management capabilities (Täuscher & Laudien, 2018).

Trust also facilitates value capture for both complementors and the platform company. For example, trust affects purchase intentions because it helps consumers form positive attitudes (Altıntaş et al., 2019). Platform trust has a positive impact on repurchase intentions (Xiao et al., 2019) and loyalty (Clauss et al., 2019). Furthermore, with a reduction of risk and increased confidence among the participants, platforms gain a competitive advantage over their rivals (Caldieraro et al., 2018), increasing the switching costs for complementors and making higher rent extraction possible (Lehdonvirta et al., 2019).

TABLE 17

Conceptualizations of "trust" in the platform literature

Category	First-order concepts	Authors
Trust	Trust, trustworthiness, trustworthy behavior, trust in the exchange, consumer trust, relationship and trust, trust-building mechanisms, trust transfer, confidence, honesty, distrust	Altıntaş et al. (2019); Caldieraro et al. (2018); Clauss et al. (2019); Curchod et al. (2020); Eckhardt et al. (2019); Hokkanen et al. (2021); Ladd (2022); Lamberton and Stephen (2016); Lehdonvirta et al. (2019); Perren and Kozinets (2018); Rangaswamy et al. (2020); Rohn et al. (2021); Trabucchi et al. (2020); Trabucchi et al. (2021c); Täuscher and Laudien (2018); Xiao et al. (2019); Zervas et al. (2017); Zhang et al. (2012)

4.2.2.6 Convenience

Reinartz et al. (2019, p. 355) defined convenience as "everything that promotes a state of physical or mental ease (adds comfort) or that simplifies fulfilment of customers' functional needs or instrumental goals (saves work)." Convenience is used as a general term (Crittenden et al., 2017; Hänninen et al., 2019; Willing et al., 2017), but specific conceptualizations, like search convenience (Eckhardt et al., 2019; Reinartz et al., 2019; Yrjölä et al., 2017), purchase convenience (Hein et al., 2020; Reinartz et al., 2019), and use convenience (Hein et al., 2019b; Reinartz et al., 2019; Yang et al., 2020), are also applied.

Search convenience implies convenient access and the ability to match differentiated goods and services offered by platform providers with the unique needs of their users (Eckhardt et al., 2019; Yrjölä et al., 2017). Purchase convenience includes efficient and convenient facilitation of transactions, such as one-stop shopping (Hein et al., 2020; Willing et al., 2017). Finally, platforms deliver or increase use convenience through benefits such as rapid response and delivery (Crittenden et al., 2017), automated marketing and consumer processes (Reinartz et al., 2019), or benefits provided by complementors' complementary resources (Yang et al., 2020). For example, Uber brings the convenience of door-to-door service and seamless transactions to users' mobile devices (Crittenden et al., 2017).

TABLE 18

Conceptualizations of "convenience" in the platform literature

Category	First-order concepts	Authors
Convenience	Convenience, search convenience, use convenience, purchase convenience, convenient services, convenient access, convenient facilitation of transactions, comfort, physical and mental ease	Crittenden et al. (2017); Eckhardt et al. (2019); Hein et al. (2020); Hein et al. (2019a); Hokkanen et al. (2021); Hänninen et al. (2019); Kim and Kim (2022); Reinartz et al. (2019); Rohn et al. (2021); Willing et al. (2017); Yang et al. (2020); Yrjölä et al. (2017)

4.2.3 Mechanisms of value capture

Among the mechanisms suggested by the platform literature to capture (exchange) value from sources of value creation and means of value delivery are efficiencies, such as reduced transaction and production costs, increased market power, and greater differentiation, which enhances price premiums and strengthens customer loyalty.

4.2.3.1 Efficiencies

Conceptualizations of efficiencies in the platform literature include reduced transaction costs (Abdelkafi et al., 2019; Hagiu, 2006; Hagiu, 2014; Helfat & Raubitschek, 2018; Liu et al., 2020; Porter, 2001; Spulber, 2019), transaction cost economics (Boudreau, 2017; Reimers et al., 2019), transaction efficiency (Cennamo, 2021), increasing returns to scale (Gawer, 2021; Iansiti & Euchner, 2018; McIntyre et al., 2021; Rietveld & Schilling, 2021), production-efficiency logic (McIntyre et al., 2021), reinforcing network effects (Cennamo, 2021), reduced inventory risk (Ladd, 2022), and user acquisition costs (Hänninen & Smedlund, 2021; Yang et al., 2020; Zhang & Tang, 2019).

Low transaction costs, often theorized using transaction cost economics (Williamson, 1985), are mainly referred to as a generic mechanism of value capture from efficiency (Abdelkafi et al., 2019; Hagiu, 2006; Helfat & Raubitschek, 2018; Porter, 2001) and reduced search costs (Casadesus-Masanell & Campbell, 2019; Tavalaei & Cennamo, 2020; Yang & Wang, 2013). The general assumption is that platforms, as any firm, seek to reduce the transaction and

production costs of many routine activities, lowering overall costs for all users (Rangaswamy et al., 2020). Thus, this element is strongly related to the concepts of size and scale, including scale benefits of fixed costs operations (Eisenmann et al., 2011; Eisenmann et al., 2006; Porter, 2001).

However, due to the reduced costs of matching supply and demand (Abdelkafi et al., 2019; Hagiu, 2014), and increasing returns from scale due to network effects, platforms may encounter lower transaction costs than traditional value chain businesses (Lehdonvirta et al., 2019; Liu et al., 2020). Also, the exploitation of this efficiency allows platforms to create new markets unthinkable in a traditional economy characterized by high transaction costs (Braune & Dana, 2022).

Examples include eBay, which allows buyers and sellers to settle transactions using PayPal (Hagiu, 2014); Apple, which reduces search costs by facilitating interactions between app developers and mobile users (Tavalaei & Cennamo, 2020); OpenTable, which provides innovative services that reduce transaction costs for both restaurants and diners (Helfat & Raubitschek, 2018); and Airbnb and Match.com, which provide search functionality based on desirable characteristics. Other effective ways to reduce search costs include limiting choice, through either algorithms or “editorial” curation (Casadesus-Masanell & Hałaburda, 2014), or employing countersignaling to reduce information asymmetry (Caldieraro et al., 2018).

TABLE 19

Conceptualizations of "efficiencies" in the platform literature

Category	First-order concepts	Authors
Efficiencies	Transaction costs, transaction cost economics (TCE), search costs, lower search costs, production-efficiency logic, transaction and information costs, transaction efficiency, self-reinforcing system	Abdelkafi et al. (2019); Boudreau (2017); Braune and Dana (2022); Caldieraro et al. (2018); Casadesus-Masanell and Campbell (2019); Cennamo (2021); Gawer (2021, 2022); Hagiu (2006); Hagiu (2014); Helfat and Raubitschek (2018); Hänninen and Smedlund (2021); Iansiti and Euchner (2018); Jiang and Zou (2020); Kim and Kim (2022); Lehdonvirta et al. (2019); Liu et al. (2020); McIntyre et al. (2021); Ordanini and Pol (2001); Porter (2001); Rangaswamy et al. (2020); Reimers et al. (2019); Rietveld and Schilling (2021); Rohn et al. (2021); Spulber (2019); Tavalaei and Cennamo (2020); Trabucchi et al. (2020); Trabucchi et al. (2021d); Weking et al. (2020); Yang and Wang (2013); Yang et al. (2020); Zeng and Glaister (2016); Zhang et al. (2022); Zhang and Tang (2019)

4.2.3.2 Market power

Unlike value creation, value capture refers to how platforms own and control customer relationships on both sides of a market (Cutolo et al., 2021; Gawer, 2022), conceptualized as market power (Katz & Shapiro, 1985; Nuccio & Guerzoni, 2019; Thomas et al., 2014), information asymmetry (Chan et al., 2022; Yang et al., 2020), power asymmetry (Curchod et al., 2020), monopoly power (Gawer & Henderson, 2007; Iansiti & Euchner, 2018), or a monopolistic position (Gawer, 2021, 2022; Thomas et al., 2021).

This is especially evident if the market is characterized by a winner-takes-all outcome (McIntyre et al., 2020; Rietveld & Schilling, 2021) where the market tends to converge on a single, dominant platform due to network effects (Basaure et al., 2020; Hossain & Morgan, 2013).

As a result of increased market power, and even monopoly power (Spinello, 2005), platforms capture value beyond scale efficiencies through pricing (Rietveld & Schilling, 2021), market entry in complementors' spaces (Wen & Zhu, 2019), increased switching costs (Zhu, 2019; Zhu

& Liu, 2018), leveraging the existing user base to enter new markets through "platform envelopment" (Eisenmann et al., 2011, p. 13), or adjusting ranking algorithms to favor one's own products or services (Cutolo et al., 2021).

TABLE 20

Conceptualizations of "market power" in the platform literature

Category	First-order concepts	Authors
Market power	Market power, power, dominant platform, market dominance, monopoly power, monopolistic position, central actor, information asymmetry, power imbalance, power asymmetry	Caldieraro et al. (2018); Chan et al. (2022); Curchod et al. (2020); **Cusumano et al. (2019); Cutolo et al. (2021); Edelman (2014); Etro (2021); Gawer (2021, 2022); Gawer and Henderson (2007); Iansiti and Euchner (2018); **Katz and Shapiro (1985); Kenney et al. (2019); McIntyre et al. (2021); Nuccio and Guerzoni (2019); Rietveld and Schilling (2021); Spulber (2019); Thomas et al. (2014); Thomas et al. (2021); Wen and Zhu (2019); Yang et al. (2020); Zhang and Tang (2019); Zhao et al. (2019); Zhu and Liu (2018)

** Not included in review sample (n=181): originates from the theoretical foundation covered in this thesis.

4.2.3.3 Differentiation

Value capture conceptualizations of differentiation (Rietveld & Schilling, 2021; Taeuscher & Rothe, 2021) include product differentiation (Etro, 2021; Thomas et al., 2014), price premiums (Täuscher & Laudien, 2018), premium services and products (Trabucchi et al., 2021a; Zhao et al., 2019), price differentiation, and price discrimination to optimize revenues and profits (Nuccio & Guerzoni, 2019; Rangaswamy et al., 2020), but also diversification through new revenue streams, cross-selling from product recommendations (Zhang et al., 2022), reduced cost and risk from innovation, and product entry and value from loyalty. Finally, customer loyalty, platform brand loyalty, and repurchase intention are also identified as value capture mechanisms for a platform (Clauss et al., 2019; Eckhardt et al., 2019; Vakeel et al., 2021).

According to Cennamo (2021), platforms gain differentiation in the market based on distinct market positioning, distinct and superior technological capabilities, or distinct complementors and content. For example, platforms leverage heterogeneity in user preferences to create a differentiation advantage (McIntyre et al., 2021) and utilize data to learn about product-market

potential and decide in a more informed way whether or not to enter markets (Toh & Agarwal, 2022), e.g., Amazon provide private labels that are qualitatively different from complementors to capture more value from the market (Cutolo et al., 2021; Etro, 2021).

Platforms also capture value through pricing strategies. For example, Airbnb controls the price and thus maximizes its profits while simultaneously limiting competitors' market power (Zervas et al., 2017), while Uber engages in practices that increase pricing, charging higher prices during "rush hours" (McIntyre et al., 2021).

Other value capture mechanisms identified in the platform literature are diversification and new revenue streams. Examples include Uber's supply-side extension, Uber Eats, and Amazon's diversification into highly profitable cloud services (Nuccio & Guerzoni, 2019).

Finally, loyalty is conceptualized as an implicit mechanism for capturing exchange value, affecting efficiencies (e.g., customer acquisition and marketing costs), pricing (i.e., price premium), and market power (e.g., switching costs) (Eckhardt et al., 2019; McIntyre et al., 2021; Rietveld & Schilling, 2021; Trabucchi et al., 2020).

TABLE 21

Conceptualizations of "differentiation" in the platform literature

Category	First-order concepts	Authors
Differentiation	Differentiation, product differentiation, price premium, premium products and services, price differentiation, price discrimination, diversification, new revenue streams, cross-selling from recommendations, reduced innovation risk, loyalty, customer loyalty, platform loyalty, repurchase intention	Cennamo (2021); Clauss et al. (2019); Cutolo et al. (2021); Eckhardt et al. (2019); Etro (2021); Gawer (2021, 2022); Ladd (2022); McIntyre et al. (2021); Nuccio and Guerzoni (2019); Rangaswamy et al. (2020); Rietveld and Schilling (2021); Rohn et al. (2021); Thomas et al. (2014); Toh and Agarwal (2022); Täuscher and Laudien (2018); Vakeel et al. (2021); Zhang et al. (2022); Zhao et al. (2019)

4.3 Discussion

In answering the research question of how value is conceptualized in the platform literature, this review began by identifying how the literature conceptualizes sources of value creation (see Table 22 for a summary). Among the different conceptualizations, two key differences were identified. The first difference relates to the originator of value. Here, the literature differentiates between the platform provider or owner, the complementor, and the customer as the originator, and represents a fundamental difference in how we look at value creation from a traditional value chain business because both customers and complementors operate with autonomy in terms of the content they provide to the platform. The other difference between the value conceptualizations described in the literature is whether the source of value is utilized directly or implicitly through other sources or means of value. For example, network effects create value implicitly through size, which is the instrument employed for increased reach or value-creating interactions, while other sources, such as platform-controlled resources or capabilities, operate more directly in creating value through, for example, improved matching of supply and demand.

In the case of the means of value delivery, a difference among the value conceptualizations is the identification of the benefiting partner of each value concept (see Table 22). While greater variety and lower price are benefits to the customer, they are generally viewed by the complementor as a disadvantage, as higher competition and lower prices reduce their margins. Other conceptualizations, however, benefit both customers and complementors, such as the primary function of matching supply and demand, as customers can find what they are looking for, and complementors can reach customers with their offering.

Also, in the case of the value capture mechanisms (see Table 22), some of these mechanisms directly reflect captured exchange value, such as cost reductions. Other mechanisms, however, rely on specific and often implicit mechanisms of how the conceptualization is used to capture exchange value—for example, when loyalty is used to earn excess profits, and market power is used to negotiate lower purchasing costs.

Another observation is that different streams of platform research concentrate on a limited set of conceptualizations that often reflect the perspective of each stream about a specific actor in the platform ecosystem, such as the value capture mechanisms of platform owners and

complementors, and few have sought to integrate conceptualizations of value relevant to different actors into more comprehensive models.

Finally, I also observed that the complexity of some value conceptualizations, such as reduced transactions costs, which may serve as (1) a source of value to society, (2) a means of value to consumers, and (3) a mechanism for capturing value for complementors, is not well covered. Thus, more research is needed on value dimensions in different contexts, across different ecosystem actors, and on the corresponding relationships between value dimensions and value conceptualizations in a platform business model, which I turned to in the next study (study 2). In this respect, Table 22 below provides a more granulated overview of the different value conceptualizations covered above in 22 categories and 16 subcategories representing 38 different value conceptualizations.

TABLE 22

Value conceptualizations in a platform business model

SOURCES OF VALUE CREATION	ORIGINATOR
Network effects – direct/indirect	Platform
Economies of scale	Platform
– Size of network	Platform
Economies of scope	Platform
– Excess capacity and efficiency in resource utilization	Platform
– Capabilities	Platform
– Big data analysis	Platform
– Pricing as a coordinating mechanism for growth	Platform
– Core functionality and platform architecture	Platform
– Customer orientation, relationship management, governance	Platform
Complementor network size	Complementor
Complementor innovation	Complementor
Customer-provided interactions	Customer
Customer-provided reviews and ratings	Customer

MEANS OF VALUE DELIVERY	BENEFIT TO
Low price	Customer
Product variety	Customer
Product quality	Customer
Trust	Customer
Personalization	Customer
Reach	Complementor
– Matching supply and demand	Complementor and customer
Fulfillment of heterogeneous needs	Complementor and customer
Reduced transaction costs	Complementor and customer
– Reduced search costs	Complementor and customer
Quality of interactions	Complementor and customer
Convenience	Complementor and customer
VALUE CAPTURE MECHANISMS (FOR PLATFORM)	**BENEFIT TO**
Efficiencies	Platform
– Increasing returns to scale	Platform
– Reduced transaction costs	Platform
– Reinforcing network effects	Platform
– Reduced inventory risk	Platform
Market power	Platform
Differentiation	Platform
– Price premium/pricing	Platform
– Diversification	Platform
– New revenue streams	Platform
– Innovation and product entry	Platform
– Customer loyalty	Platform

5 Study 2: Outlining platform value logics

While the previous study identified and grouped individual conceptualizations of value into the value dimensions of "value creation," "value delivery," and "value capture," more extensive and complex relationships between these three dimensions are also described in the platform literature. For example, as Bezos' napkin illustrates, when complementors provide product variety that meets the needs of heterogeneous customers on a platform, they enable price differentiation or discrimination as a mechanism of value capture. In other words, the review indicated how individual sources of value are utilized through a variety of value delivery means and captured through different mechanisms of value capture. Beliefs about such relationships may have varying degrees of theoretical and empirical support, but they are often acknowledged by platform executives and researchers alike and as such warrant a closer examination.

In line with the business model literature, in which value creation is seen as both a supply- and demand-side phenomenon (Massa et al., 2017) and the variety of strategic elements is drawn together, combined, and arranged in different ways (Baden-Fuller & Morgan, 2010), this study therefore posed the following research question: *How are relationships between value conceptualizations manifested in the business model of a digital marketplace platform company?*

To improve our understanding on the complexity between potential sources of value creation and value capture in platform business models (Cusumano, 2020), I therefore developed a conceptual framework that I term "value logics", based on findings in the literature review before empirically validating the framework through a multiple-case study of three platform companies.

5.1 Development of conceptual framework

I first revisited the data from study 1 and sequenced the conceptualizations identified into 13 structurally different (complete or partial) relationships between value dimensions as found (often implicit) in the platform literature. Next, I identified commonalities between these 13 conceptualizations–dimensions–relationships and grouped them into the five fundamental

value logics as shown in Table 24, primarily based on differences between the source of value creation fundamental to each logic.[11]

Different from Adner's (2017) structural or architectural approach described in chapter 2, value logics view value creation from an institutional perspective according to which platform and ecosystem business models typically require the sharing of beliefs by the value-creating actors involved.

The concept of "logics" has been applied in related research at different levels and via different traditions (see Table 23). At the higher level, new institutional theorists discuss institutional logics (Friedland & Alford, 1991; Thornton & Ocasio, 1999) as field logics that may influence organizations, such as organizational inertia (Gawer & Phillips, 2013; Kurtmollaiev et al., 2018) or innovation (Jay, 2013). This has also translated into organizational logics (Biggart, 1991; Guillén, 2001) as operationalizations of field logics at the organizational level (Spicer & Sewell, 2010). This organizational level is closer to my understanding of logics as the firm-level "narrative of doing business that defines the essence of what the business is[12]" (Laasch, 2018, p. 160). However, "logics" reflect more than narratives and are implemented in, for example, business plans (Doganova & Eyquem-Renault, 2009) and routines and performance management systems guiding firm-level behavior (Lueg, 2015). For example, a term like "enterprise logic" has been used in stakeholder research to capture this understanding of logic, focusing on managers' conceptualization of the firm's relationship with society (i.e., strategic variety outside the firm) (Bundy et al., 2013; Crilly & Sloan, 2012). In strategic management, logics are also differentiated from frames or organizational schemata as being more explicit about presumably causal relationships than just representing structures of organizational processes or activities (Hahn et al., 2014). Instead, logics more closely resemble collective or managerial mental models that relate specifically to organizational performance (Gary &

[11] The framework of value logics and sub logics is provided with examples for illustrative purposes and is not extensive. For example, within the scope-driven value logic, several more examples or combinations may exist, as in the case of "efficiencies in resource utilization" covered later in this chapter.

[12] Laasch (2018) uses the term "organizational value logics", but do not define this concept, but rather conceptualizes homogenous and heterogeneous organizational value logics shaped by a variety of institutional logics.

Wood, 2011). However, while mental models often have purely cognitive connotations and the term "dominant logics" primarily reflects the shared mental models of how the upper echelons "conceptualize the business and make critical resource allocation decisions—be it in technologies, product development, distribution, advertising, or in human resource management" (i.e., strategic variety inside the firm) (Prahalad & Bettis, 1986, p. 490), my conceptualization of value logics is both more general and operational than this (see Table 23). It is more general than "dominant logic" in the sense that value logics are similar to enterprise or organizational logics in reflecting both organizational-level beliefs and their implementation in organizational routines and systems. The use of the plural "logics" also acknowledges that, as in institutional logics, several competing or aligned logics may coexist (as in Bezos' napkin) (Besharov & Smith, 2014). Value logics are also more operational than dominant logics in covering primarily the beliefs reflecting value creation relationships including, but not restricted to, how sources of value are related to organizational performance. For example, they also involve beliefs reflecting what kinds of value are created for whom, and through what mechanisms, in and around the organization.

TABLE 23

Overview of logics

Logic	Definition or description	Examples of applications
Institutional logics	"The socially constructed historical patterns of cultural symbols and material practices, assumptions, values, and beliefs by which individuals produce and reproduce their material subsistence, organize time and space, and provide meaning to their daily activity" (Thornton & Ocasio, 1999, p. 804). "Each of the most important institutional orders of contemporary Western societies has a central logic – a set of material practices and symbolic constructions – which constitutes its organizing principles and which is available to organizations and individuals to elaborate" (Friedland & Alford, 1991, p. 248).	Shaping of "cognition and behavior of interacting individuals, ensuring the collective understanding of meaning" (Kurtmollaiev et al., 2018, p. 60); impact on organizational inertia (Gawer & Phillips, 2013; Kurtmollaiev et al., 2018), or innovation (Jay, 2013); institutional change (Seo & Creed, 2002; Smets et al., 2012; Thornton et al., 2012)
Organizational logics	"The sensemaking frames that provide understandings of what is legitimate, reasonable and effective in a given context" (Guillén, 2001, p. 14). "A legitimating principle that is elaborated in an array of derivative social practices" (Biggart, 1991, p. 222).	Operationalization of field logics at the organizational level (Spicer & Sewell, 2010), bundling of manufacturing and human resource practices (Macduffie, 1995), the "selection of governance, strategy and work systems" within a firm (Spicer, 2006, p. 1468).
Value logics	Fundamental beliefs about relationships between the dimensions of value in a business model.	
Enterprise logics	"The way in which top managers conceptualize their firm and its relationship with actors in the firm's economic and sociopolitical environment" (Crilly & Sloan, 2012, p. 1176)	Managers' conceptualization of the firm's relationship with society (strategic variety outside the firm) (Bundy et al., 2013; Crilly & Sloan, 2012).
Dominant logics	"The way in which managers conceptualize the business and make critical resource allocation decisions – be it in technologies, product development, distribution, advertising, or in human resource management" (Prahalad & Bettis, 1986, p. 490)	Shared mental models, conceptualization of the business, and resource allocation decisions (strategic variety within the firm), e.g., determinants for diversification and organizational adaptation (Franke & zu Knyphausen-Aufsess, 2014; Prahalad & Bettis, 1986); organizational intelligence (Bettis & Prahalad, 1995)

Note: The logics above are "ranked" from a higher institutional level to an individual level, with value logics reflecting both organizational-level beliefs and their implementation in organizational routines and systems.

For example, Craigslist commits to a particular subset of logics in guiding its strategic choices of business model and governance strategy (Ocasio & Radoynovska, 2016, p. 295). The business model literature (Massa et al., 2017) also treats logics (core logic, company logic, business logic) as integral parts of a business model, and some authors have even equated logics to business models (economic logic, Magretta, 2002, p. 4). However, in the most widespread, configurational perspectives, business model research address the underlying logic of how firms create and deliver value in an activity-based system (Zott & Amit, 2010, p. 219).

I therefore define value logics as *fundamental beliefs about relationships between the dimensions of value in a business model*. Thus, value logics, especially for digital platforms, support the platform business model as a configuration of activities, resources, and capabilities and guide the design of platform architecture, governance structure, and performance management systems.

The following value logics[13] (Table 24) are arranged according to frequency in the platform literature, starting with the most known or established relationships (economies of scale), and ending with the most original relationships (interactions). Also, I demonstrate which relationships in each value logic are specific to the platform context or represent relationships known from generic value logics that apply to businesses without platform or intermediary characteristics.

[13] Although mixing concepts and actors, the naming of the five value logics (scale, complementor, scope, interaction, customer) are used for communicative purpose and should be considered as proper nouns.

TABLE 24
Conceptual framework: Value logics

Logic	Sources of Value Creation	Means of Value Delivery	Mechanisms of Value Capture	Platform-specific Logic?	Studies
Scale-driven value logic	Size: Economies of scale and price competition	Low price to customer	Efficiencies Market power	No	Eisenmann et al. (2006); Kandampully (2003); Ordanini and Pol (2001); Porter (2001); Rangaswamy et al. (2020)
	Size of customer/complementor network	Reach • Matching complementor and customer • Reduced customer search costs	Efficiencies • Increasing returns to scale • Reduced transaction costs Market power Differentiation • Pricing	Yes	Chu and Manchanda (2016); Cusumano (2012); Edelman (2014); Eisenmann et al. (2011); Gawer (2014); McIntyre et al. (2021); Panico and Cennamo (2020); Yang et al. (2020); Zhu and Iansiti (2012)
	Network growth	Access to new markets/network access for complementors	Market power • Entry barrier Differentiation • Pricing • New market entry	Yes/No	Basaure et al. (2020); Eisenmann et al. (2006); Etro (2021); Hossain and Morgan (2013); Spinello (2005); Zhu (2019)
	Data as a resource (volume)	Matching supply and demand at scale	Efficiencies • Reduced transaction costs Differentiation • New revenue streams • Customer loyalty	No/Yes	Biglaiser et al. (2019); Hänninen et al. (2019); Hänninen et al. (2018); Trabucchi and Buganza (2020); Willing et al. (2017)

TABLE 24 CONTINUED
Conceptual framework: Value logics

Complementor-driven value logic	Complementor network size	Product variety Reduced search costs Convenience	Efficiencies • Reinforcing network effects/platform growth Differentiation • Pricing • Customer loyalty	Yes	Alt and Zimmermann (2019); Cenamor et al. (2013); Cennamo (2018); Eloranta and Turunen (2016); Hänninen et al. (2019); Perks et al. (2017); Ramaswamy and Ozcan (2018a); Steiner et al. (2016); Zervas et al. (2017)
	Complementor innovation	Product quality	Efficiencies • Reduced inventory risk Differentiation • Pricing • Customer loyalty	Yes	Cennamo (2018); Clauss et al. (2019); Hagiu (2009); Hänninen et al. (2019); Lee et al. (2018); Nuccio and Guerzoni (2019)
Scope-driven value logic	Excess capacity	Diversification	Differentiation • New revenue streams • Risk reduction	No	Hein et al. (2020); Miric et al. (2019); Nuccio and Guerzoni (2019); Shaughnessy (2016); Trabucchi and Buganza (2020)
	Scoped capabilities: Data analytics and insight	Personalization and customization	Differentiation Price premium Multiple revenue streams	No	Biglaiser et al. (2019); Hänninen et al. (2019); Hänninen et al. (2018); Laczko et al. (2019); Willing et al. (2017)
	Scoped capabilities: Customer orientation and relationship management	Improved customer experience Empowerment Trust	Efficiencies • User acquisition Differentiation Market power Customer loyalty and repurchase intention	No	Eisenmann et al. (2011); Gawer (2014); Kollmann et al. (2020); McIntyre et al. (2020); Ramaswamy (2020); Rangaswamy et al. (2020); Reinartz et al. (2019)

TABLE 24 CONTINUED
Conceptual framework: Value logics

Customer-driven value logic	Customer-provided reviews and ratings	User experience Trust Reduced search costs	Differentiation • Price premium • Customer loyalty • Repurchase intention	No	Alt and Zimmermann (2019); Altıntaş et al. (2019); Clauss et al. (2019); Greve and Song (2017); Lamberton and Stephen (2016); Lehdonvirta et al. (2019); Xiao et al. (2019); Zhang et al. (2012)
Interaction-driven value logic	One-sided customer interactions	Quality of interactions • Reduced customer transaction costs	Differentiation • Interaction-driven revenues	No	Cenamor et al. (2013); Chu and Manchanda (2016); Steiner et al. (2016); Sun and Tse (2009)
	Cross-sided customer/complementor interactions	Quality of interactions • Reduced customer transaction costs • Trust and reduced risk	Differentiation • Interaction-driven revenues • Innovation and product entry	Yes	Eckhardt et al. (2019); Eisenmann et al. (2006)
	One-sided complementor interactions	Trust in platform for complementors Improved matching	Differentiation • Revenues from value-adding services and advertising • Complementor loyalty	No/Yes	Lee et al. (2018); Li et al. (2018); Trabucchi et al. (2021c)

5.1.1 Scale-driven value logic

The scale-driven value logic builds on the assumption that platform value increases with network size, by the number of users on either the same or other side, and is related to network effects, but is not necessarily dependent on these factors for value creation. Four instances of this logic are represented by the following relationships between value dimensions (source-delivery-capture):

- Size – low price – efficiency and power
- Size – reach – efficiency and power
- Growth – network access – market power and differentiation
- Volume of big data – matching – differentiation

The first instance is based on value creation through size and growth and corresponds to the first value logic of Bezos' napkin. Here, size and scale are value sources delivered to customers through lower prices and enable value capture through efficiencies and market power. This is due to the economies of scale of fixed costs operations (Reinartz et al., 2019), reduced costs because of volume discounts, the use of existing assets or resources across families of products (Gawer & Cusumano, 2014; Ordanini & Pol, 2001), or as a result of price competition (Rangaswamy et al., 2020). However, this logic is not specific to platforms alone but also applies to any business following the general economies of scale rationale.

In the second instance, size can also affect reach because a platform that establishes a large base of both customers and complementors increases network performance through improved matching of supply and demand and reduced search costs for customers (Edelman, 2014; Eisenmann et al., 2011; Yang et al., 2020). This value is captured through increased efficiencies, such as increasing returns to scale, reduced transaction costs, and market power, but also via differentiation through pricing (McIntyre et al., 2021). This logic is specific to platforms because of indirect network effects, whereby users on one side of the market impact the value of the platform to users on the other side, and vice versa (Rochet & Tirole, 2003, 2006).

In the third instance, size and growth are also a source of value that drives the attractiveness of the platform toward complementors that gain value through access to new markets. As size

increases, the platform company may gain monopolistic power that permits the capture of a disproportionate share of the value the complementors create through increased fees and commissions from either complementors or customers (Basaure et al., 2020; Edelman, 2014; Spinello, 2005; Zhu, 2019). While monopolistic power is a general mechanism of value capture applying to many different businesses, the platform-specificity of this logic is how network effects drive platform growth, which facilitates additional value capture through efficiencies, market power, and differentiation, as in the two first instances.

In the fourth instance, the volume of data is used to improve matching between complementors and customers and reduce search costs for the latter. Here, data is considered a resource, whereby size drives the volume of data, which is different from when data is utilized through analytical capabilities, a logic on which I elaborate further below. The value capture mechanisms in this logic involve differentiation and increased loyalty as a result of improved matching, but also through the generation of new revenue streams from data trading and data-driven loyalty programs (Trabucchi & Buganza, 2020; Willing et al., 2017). Thereby, data as a resource power the platform's business model, and because platforms also collect data across their ecosystem, the sheer volume and complexity of data is difficult to match for traditional businesses.

5.1.2 Complementor-driven value logic

In two of the structural relationships, complementor characteristics—including the number of complementors and their innovativeness—typify the value logic:

- Complementor network size – product variety – efficiencies
- Complementor innovation – product quality – differentiation

The first instance reflects the second value logic of Bezos' napkin, i.e., a wide variety of products (and services) creates value through better customer experience. The complementors provide the selection (variety) that enables the matching of heterogenous customer needs (Cennamo, 2018), reduces customer search costs, and improves use convenience (Eckhardt et al., 2019; McIntyre & Srinivasan, 2017). Improved customer experience further increases network effects, efficiently fueling platform growth. Furthermore, because higher variety potentially means less competition, higher rent extraction can also be facilitated (Hagiu, 2009).

This logic is specific to platforms as the source of value originates from complementors that operate with a high degree of autonomy on digital platforms.

Platforms also depend on the innovativeness of complementors to increase product and service quality. Value is consequently co-created with a network of actors coordinated on the platform (Ramaswamy & Ozcan, 2018a). The more high-quality products are available on the platform, the greater the benefits to customers from using the platform and its complementary products (Cennamo, 2018), securing—or raising—the overall reliability, profitability, and competitive advantage of the platform through price premiums or increased customer loyalty (Lee et al., 2018; Nuccio & Guerzoni, 2019; Tellis et al., 2009). Additionally, when complementors provide the quality and innovativeness of the products, inventory risk shifts from the platform to the complementors (Hänninen et al., 2019) and allows the platform to reach new markets by leveraging complementors' architectures and networks (McIntyre & Srinivasan, 2017). Thus, this instance of complementor-driven logic is highly platform-specific.

5.1.3 Scope-driven value logic

This value logic relies on the uniqueness of assets, labor, or activities controlled by the platform firm as the source of value (Gawer, 2021). By "controlled by," I include both the platform's own resources and capabilities and those leveraged across the platform ecosystem. This logic incorporates platform architecture, openness, and governance, and is well supported by the RBV and the theory of dynamic capabilities, which influence much of the strategy and management streams of platform research (McIntyre and Srinivasan (2017). Three instances illustrate the scope-driven value logic:

- Excess capacity – diversification – new revenue
- Data capabilities – personalization – differentiation
- Customer and relationship management capabilities – customer experience – differentiation

In the first instance, excess capacity is utilized beyond the traditional focus of capacity planning (Porter, 2001; Trabucchi et al., 2021d). The customer base is employed to attract new transactional services to the platform, where value is delivered through diversification and supply-side extensions and captured through new revenue streams. For example, Airbnb opened

their platform to experience hosts, and Uber deployed their driver capacity to launch the Uber Eats service, thereby stimulating differentiation and new revenue streams without adversely impacting the primary mechanisms in the existing platform (Trabucchi & Buganza, 2020).

Different from considering the platform's volume of data as a resource, the second instance of the scope-driven value logic focuses on utilizing data through analytical capabilities—for example, in value delivery through unique personalization and product recommendations (Hänninen, 2020; Hänninen et al., 2019). Such capabilities support the further development of customers' heterogeneous preferences (e.g., "long tail assortments")—a form of market development stimulating growth. Consequently, the platform captures more value through segmentation and price optimizations (Nuccio & Guerzoni, 2019) and identifies new revenue streams based on customer insights (Hukal et al., 2020; Willing et al., 2017).

In the third instance, the capability of relationship management serves as a source of value creation. Through network orchestration, community participation, and the management of firm boundaries and interfaces, platforms assist complementors in transforming their own interlinked actors and capabilities into assets (Eloranta & Turunen, 2016; Li et al., 2018). The value of such dynamic capabilities is delivered to customers through relevance, engagement, convenience, and empowerment (Ramaswamy, 2020; Reinartz et al., 2019) and by building trust (Perren & Kozinets, 2018; Rangaswamy et al., 2020). Value is captured from cost efficiencies, market power (Kollmann et al., 2020), and differentiation through customer loyalty and repurchase intentions (Altıntaş et al., 2019; Clauss et al., 2019). While each instance of this logic relies on platform-specific resources and capabilities, the logic itself follows the generic principles of scope-driven value creation supported by the RBV and dynamic capability theories.

5.1.4 Customer-driven value logic

Value creation can uniquely rely on one side of platform users being customers. Analogous to the complementor-driven logic, value can originate from content created by individual

customers (or firm representatives[14]) instead of from their interactions. While marketing and innovation literature have covered how organizations involve customers and end users in their innovation and product development processes (Alam, 2002; Chesbrough, 2011; Gruner & Homburg, 2000; Matthing et al., 2004; von Hippel, 1986), examples from the platform literature include value creation (and co-creation) through reviews and ratings (Lamberton & Stephen, 2016; Trabucchi & Buganza, 2020), uploading of pictures and videos (Ramaswamy & Ozcan, 2018b), and the creation of designs or product ideas (e.g., in the LEGO Ideas platform) (Wichmann et al., 2022). Within the scope of marketplace platforms, however, one specific instance of this logic was identified:

- Reviews and ratings – customer experience and trust – differentiation

Platforms convert customer content, like reviews and ratings, into a source of value. These affordances, which also serve as platform-verified signals, facilitate value delivery through trust, improved customer experience (convenience), and reduced search costs (ranking of search results). Consequently, they are utilized extensively by platform companies such as Airbnb, eBay, Taobao, TripAdvisor, and Uber for differentiation purposes (Curchod et al., 2020; Lehdonvirta et al., 2019; Ramaswamy & Ozcan, 2018b; Zhang et al., 2012). Value from this logic is captured through price premiums, customer loyalty, and repurchase intentions, as trust helps customers form positive attitudes and is a prerequisite for loyalty (Altıntaş et al., 2019; Greve & Song, 2017; Lamberton & Stephen, 2016; Xiao et al., 2019). By itself, this logic is not specific to platforms, but the value created from it is amplified when combined with other, platform-specific logics.

5.1.5 Interaction-driven value logic

In this logic, the source of value is not reaching a large volume of users *per se* but instead the same-side and cross-side interactions between them. Value is delivered to users by the quality of interactions offered through the platform. This logic also differs from complementor- and

[14] While this logic is derived from the end-customer's perspective in the literature, it may also apply to firm representatives. For example, a firm representative may produce content such as a product review or product test in a B2C platform, but also in a B2B marketplace like Alibaba, where firm representatives provide product and seller reviews and ratings.

customer-driven logics as elaborated above because value originates from the interactions rather than from the content offered by users and complementors. Three instances of this logic are represented by the following relationships between value dimensions:

- One-sided customer interactions – quality of interactions – differentiation
- Cross-sided customer/complementor interactions – quality of interactions – differentiation
- One-sided complementor interactions – trust – differentiation

In the first instance, users in one-sided networks interact by exchanging similar content, value is delivered through the quality of interactions (Chu & Manchanda, 2016; Sun & Tse, 2009), and the reduction in customers' transactions costs as a network service facilitates interactions between similar actors (Abdelkafi et al., 2019; Tavalaei & Cennamo, 2020). This classic logic is often implicit in research on generations of communication networks (Katz & Shapiro, 1994) but also on online forums and social media, from which value is captured through subscription-based revenues (Enders et al., 2008). Thus, this type of logic is generic to network services facilitating interactions.

When cross-sided interactions are facilitated, as in the second instance, the logic is more platform-specific. Cross-sided interactions enable the signaling of user needs and content requests to complementors (Eckhardt et al., 2019; Hukal et al., 2020). This reduces purchasing risk but, most importantly, may drive revenue from future transactions through complementor innovations (Hukal et al., 2020). Also, the platform obtains information about customer needs and complementor resources that can be aggregated and employed in its product entry decisions (Etro, 2021; Toh & Agarwal, 2022; Zhu & Iansiti, 2012).

Direct interactions between individual complementors may also serve as a source of value for the platform. Sometimes facilitated by the platform through "on-platform social forums," direct interactions allow complementors to share ideas and resolve problems related to platform participation. Examples include Amazon's Seller Forum, Alibaba's Merchant Community, and Etsy's Community Forum (Lee et al., 2018; Li et al., 2018; Trabucchi et al., 2021c). Here, value is delivered by building complementor trust in the platform and by increasing complementor

engagement and is captured through increased revenues from value-adding services and increased loyalty.

While the five value logics discussed in the conceptual framework above were developed based on how the platform literature describes partial or complete relationships between the different value dimensions, their empirical basis is limited. Therefore, to strengthen the validity of the proposed framework, I conducted a case study of three platform companies, which I describe next.

5.2 Method

5.2.1 Research design

To validate the proposed theoretical framework of value logics, a qualitative research method with a holistic, multiple-case study design was chosen (Eisenhardt, 1989; Yin, 2018). A multiple-case study allows the researcher to recognize and evaluate relationships among constructs and thereby gain new theoretical insights. Conducting a multiple-case study was relevant to answering the research question explored in this study as it relates to "how" and "whether" proposed value logics are reflected in beliefs among platform managers. Multiple cases also increase the methodological rigor of a study through "strengthening the precision, the validity and stability of findings" (Miles & Huberman, 1994, p. 29). This is because evidence from multiple cases is often considered more compelling (Yin, 2018, p. 54) and yields "more robust, generalizable, and testable theory than single-case research" (Eisenhardt & Graebner, 2007, p. 27). Still, as the overall phenomenon examined in the study was value creation in platforms, a holistic approach was chosen in which each case provided different perspectives on the phenomenon, enabling cross-case comparisons and the modification of theory. The unit of analysis in the research was at the firm-level, focusing on the role of the

platform owner, the role of complementors, and the role of customers in creating value[15] in a platform's business model(s).

Cases were selected on a theoretical, non-random basis, with a focus on theoretically useful cases, and a literal replication strategy was applied to increase the external validity of the study (Eisenhardt, 1989; Yin, 2018). The strategy was limited, however, to those facets of the study that were generalizable to other cases (Creswell, 2003, p. 195). Contrary to surveys and experiments, which typically rely on statistical generalization, case studies rely on analytical generalization, with the generalization occurring at a "conceptual higher level than that of the specific case" and encompassing a broad variety of other situations (Yin, 2018, pp. 38-39). The rationale of the replication logic was to choose cases that operated in similar settings and could thus be expected to generate similar results—three cases were selected on this basis. This selection was in line with the literature, which argues that two to three cases is sufficient for a replication logic in a multiple-case study design (Yin, 2018, p. 55).

A selection of cases believed to be literal replications (Yin, 2018) combined with a basis of convenience was pursued (Patton, 2015). To ensure consistency and reduce bias from the selection process, a criterion strategy was applied to all cases. Similar to Trabucchi et al. (2021c), the conditions for inclusion in the study were as follows: (i) the existence of at least two groups (customers and complementors) linked by cross-side network effects, (ii) the existence of a platform provider that enables a link between the groups (sides of the market), and (iii) the existence of a transaction directly enabled by the platform between the groups, making it a transactional marketplace platform, either two-sided or multi-sided (Evans, 2003a; Hagiu, 2014; Rochet & Tirole, 2006). The aim of the criterion strategy was to ensure the generation of insights and in-depth understanding from "information-rich cases whose study will illuminate the questions under study" (Patton, 2002, p. 273).

Three case companies (see description below) were selected for the study: Zalando, a major international fashion retail platform across Northern Europe with a successful platform model;

[15] I use the term "value creation" here as a general concept for the sake of simplicity, although the study built on and differentiated between value creation, value delivery, and value capture.

Komplett, a leading Nordic e-commerce electronics retailer that closed their B2C marketplace operations to pursue a pure e-commerce business; and FINN, a highly successful Norwegian marketplace platform that includes both B2C and C2C configurations.

5.2.2 Data collection and analysis

Semi-structured interviews were combined with secondary sources (see Table 25) in a triangulation aimed at increasing the reliability and robustness of the findings (Eisenhardt, 1989; Miles & Huberman, 1984; Yin, 2018). The secondary data consisted of company documents, presentations, public interviews, and press releases. In addition, informal conversations, workshops, and conference presentations informed the cases and the overall understanding of the phenomenon (the study).

Interviewees were contacted by email and telephone, with all interviews conducted in person except one, which was conducted digitally using a video conference system (Zoom). Each interview lasted approximately one hour and was recorded. Each interviewee was informed about the purpose of the study and gave consent to publish their data. The interview guide (see Appendix 5) consisted of a loose structure, with a few questions focused on the main categories of value logics ("scale," "complementor," "interaction," "scope," and "customer") so as to allow for a natural conversation and facilitate the discovery of emerging themes as part of the conversation. As the purpose of the interviews was to validate the proposed value logics, the framework was briefly introduced to the interviewees (logic by logic stepwise) before exploring how the value logics were manifested in the platform manager's own beliefs, and whether—and if so, how—the value logics were operationalized by the platform company. In two of the three cases, bias was decreased by interviewing multiple interviewees.

Secondary data were used to reinforce the data derived from the interviews, search for evidence for the proposed value logics, and reduce informant and interviewer bias. Teaching cases from two of the selected cases (Zalando, FINN) was also added to gain additional insights from the top management of the company that were not available directly through the interviews.

As the study applied a largely deductive approach, saturation applied to the extent to which the predefined codes or themes were adequately represented in the data, as suggested in the *a priori* saturation model by Saunders et al. (2018). Specifically, data collection was discontinued when

additional data did not provide a substantially new or radically different understanding of the proposed framework, ensuring an adequate sample to ensure the content validity of the study (Francis et al., 2010; Glaser & Strauss, 2017).

The gathered documents and interviews were analyzed through three phases: reading, coding, and interpreting the data (Saldaña, 2020). Nvivo 20 was used for coding the interviews, while the secondary data were coded manually. As the goal was to determine the validity of the conceptual framework, categories (e.g., scale-driven value logics) and themes (e.g., network size) were established first, after which the data were coded according to the framework to either support or contradict the proposed value logics. This deductive process was inspired by the "pattern matching" procedure rather than by a pure iterative process between theory and data, but without a proposed counter theory (Campbell, 1975; Hyde, 2000). Still, this allowed for alternative explanations to the proposed theoretical assumptions (value logics). As a result, the fifth value logic, the consumer-driven value logic, was included in the interaction-driven value logic instead of standing alone. The customer-driven value logic was an attempt to identify value that, similar to complementors, is created by one side of the platform—namely the customers. However, even though platform managers identified with the reasoning of this logic, their examples were limited to reviews and ratings, which was difficult to differentiate from interactions between customers and complementors. Thus, the revised framework contains four value logics: "scale-driven," "complementor-driven," "interaction-driven," and "scope-driven" value logics, leaving the validation of the customer-driven value logic to future studies.

TABLE 25

Overview of data sources

Interviews			
Interviewee	Duration	Date	Quantity
Zalando			
Country Manager	01:16:07	2023-02-09	40 pages
Komplett			
CEO Komplett Marketplace	00:56:36	2023-04-13	30 pages
COO Komplett Marketplace	00:56:41	2023-05-03	15 pages
Head of B2C, Komplett Group	01:03:07	2023-05-03	37 pages
FINN			
Chief Product Officer, Nordic Marketplaces	00:54:29	2023-04-17	25 pages

Archival data (2017–2023)			
Type	Author	Intended audience	Quantity
Investor presentations	CEO	Investors/employees	164 pages
Annual and quarterly reports	CEO	Investors/employees	1491 pages
Case reports	Academic	Academic	38 pages 38m video
Press releases and news coverage	CEO/marketing	General public	36 pages
Interviews/podcasts	Industry media	Business/tech	51m:54s

5.2.3 Description of cases

5.2.3.1 Zalando

Zalando[16] is Europe's largest player in online fashion, operating across 25 European markets with more than 7,000 global and local fashion and lifestyle brands. The company operates 12 fulfillment centers and 23 returns and refurbishment centers across Europe. In total, the company (group) comprises 57 subsidiaries that operate in the areas of logistics services, customer service, payments, product presentation, advertising, marketing, software development, integration services, and private labels. In addition to operating through a wholesale model, Zalando also offers a Partner Program, with brands integrating their stock directly on the platform (36% of gross merchandise value sold at Zalando in 2022), and a

[16] The brand name Zalando is inspired by the online shoe retailer Zappos, and the online auction site Alando.de.

Connected Retail Program that connects physical retailers to the platform, which ships their goods directly to the customers. Partners and retailers are also supported with additional value-added partner services like Zalando Fulfillment Solutions (ZFS) and Zalando Marketing Services (ZMS).

In Q3 2022, Zalando passed the 50 million mark, ending 2022 with 51.2 million active customers.[17] Of these customers, more than 2 million were members of the loyalty program, Zalando Plus. On average, each active customer places 5.1 orders annually, with an average basket size of EUR 56.70 (EUR 289.3 annually). Total revenues in 2002 were EUR 10.3 billion, and the adjusted EBIT was EUR 184.6. Gross Merchandise Value (GMV) was 14.8 billion EUR (Zalando, 2022).

Zalando was founded in Berlin in 2008 by Robert Genz and David Schneider. The company originally sold shoes online in Germany before expanding its product offerings to include apparel and accessories. By 2012, the company was present in 15 European markets and had surpassed EUR 200 million in sales. The company went public in 2014 and began the transition from an e-commerce retailer to a platform business with the introduction of the Partner Program in 2015. The Partner Program allowed brands and large retailers to create a presence on the Zalando website and the mobile app in order to reach a larger market across Europe, utilizing Zalando's digital expertise, customer service, and payment processing while maintaining its autonomy in terms of product offerings, information, pricing, and fulfillment, similar to Alibaba in China (Markoff et al., 2022).

The online fashion and accessories market in Europe was worth about EUR 172 billion in 2021, with 30% of total sales made through online channels. At a global scale, however, and by including e-commerce sites that offer products other than fashion, the largest online fashion retailers are Alibaba (China), Amazon, and jd.com (China).

[17] Measured on a trailing 12-month basis.

5.2.3.2 Komplett

Komplett[18] is the largest online-first electronics retailer in Scandinavia, operating within both B2C and B2B markets and serving its customers through webshops, physical retail stores, and self-service, logistics, and warehouse shops. In addition, it also operates the largest automated storage facility in the Nordics, serving external distributors and retailers. Currently, the main brands in the B2C segment comprise NetOnNet (established in 1999, acquired by Komplett in 2022), Webhallen (established in 1999, acquired by Komplett in 2013), and Komplett itself. NetOnNet has two online shops and 30 complementary self-service, logistics, and warehouse shops in Sweden and Norway. Webhallen is an omni-channel player with a combination of e-commerce and 17 retail stores and pick-up points in Sweden, while Komplett serves its B2C customers in Norway, Sweden, and Denmark through their e-commerce sites (komplett.no/.se/.dk) and two pick-up points in Norway. In 2022, operating revenues were 14.6 billion NOK (~1.4 billion EUR), with the B2C segment accounting for 67% of total revenues, the B2B segment accounting for 11%, and the distribution segment accounting for 22%. The company employs 1955 people (1251 FTEs) and is listed on the Oslo Stock Exchange with a market capitalization of 2.53 billion NOK as of December 31, 2022 (Komplett, 2023).

Komplett began its operations in Norway in 1991 and launched its first online retail store, Komplett.no, in the Norwegian market in 1996 before expanding to Sweden in 2000 and Denmark in 2006. In the following years, the company launched many different brands in areas ranging from pharmacies to car parts to home interior products to insurance to mobile subscriptions to banking to groceries—all digital operations that were complex and resource-intensive to build and scale. Inspired by Amazon and C-Discount in France, Komplett started planning its marketplace operations in 2015. With the combination of a strong brand and capabilities in building and scaling e-commerce businesses, Komplett had the ambition of becoming the "Amazon of the Nordics." The company had already invested in an automated warehouse solution that reduced operating costs and enabled lower prices for customers, of paramount importance in a highly competitive electronics market driven by low prices.

[18] The brand name Komplett (in English: Complete) refers to a sense of completeness or a complete selection.

In 2017, Komplett launched its marketplace for external complementors, which, overnight, expanded its business from 15,000 SKUs to more than 100,000 SKUs. More than 100 complementors signed up on the platform during the first year, and a new product category was added to the platform every quarter. Immediately, the company proved that the marketplace model worked as the platform attained growth in terms of customers, complementors, and sales. However, the success of the marketplace also challenged the classical operation of the company, and the marketplace team had underestimated the amount of internal resistance from the rest of the organization. The marketplace model allowed head-on competition from complementors with the existing inventory while simultaneously seizing a large portion of the available internal resources. There was also a concern about brand dilution because the new product categories were far from aligning with the needs of the core target group. At the same time, physical retailers within electronics had negotiated substantially better sourcing prices and had reduced their prices, which in turn reduced Komplett's margins and cash flow to fund the growth of the marketplace. Following a range of initiatives by which adjacent businesses were divested or sold to strengthen the focus on the core business of computer and consumer electronics, the marketplace was closed down on December 31, 2018.

5.2.3.3 FINN

FINN[19] is Norway's largest digital marketplace, operating within both B2C and C2C markets with an online classifieds model comprising the categories of general merchandise, real estate, jobs, vehicles, boats and travel, as well as promoting adjacent business initiatives ranging from car subscriptions to craftsman services. In 2021, operating revenues were 2.3 billion NOK (~200 million EUR) with an EBITDA of 1 billion NOK (~100 million EUR). The gross merchandise value (GMV) of products sold on the platform surpassed 700 billion NOK (~70 billion EUR) that same year.

FINN is part of Schibsted's Nordic Marketplaces division, which consists of FINN (Norway), Blocket (Sweden), Tori and Oikotie (Finland), DBA and Bilbasen (Denmark), as well as adjacent businesses. Overall, Schibsted also has news media, e-commerce and distribution, and

[19] The brand name FINN (in English: Find) relates to "finding everything you need."

financial services and ventures businesses, with a total revenue (2022) of 15.3 billion NOK (~1.5 billion EUR) and 2.4 billion NOK (~240 million EUR) in EBITDA (Schibsted, 2023). Following a company split in 2019, Schibsted formed Adevinta as an international marketplace company separate from its Nordic operations (currently, Schibsted owns 28% of Adevinta). In 2021, Adevinta acquired eBay Classifieds Group for 9.2 billion USD and transferred the Danish operations of eBay to Schibsted's Nordic Marketplaces division in a financial agreement.

FINN started in 1996 as a technical collaboration (i.e., database) between regional newspapers in Norway facing new digital competition within the classifieds market. By 1998, FINN had already published more than 600,000 classifieds ads, and the collaboration was formalized as a separate company in 1999, allowing FINN to compete directly with the established classifieds business in print (Schibsted, 2000). FINN launched its business as it exists today in March 2000 with real estate, car, and job listings before expanding into new categories in subsequent years. Within a few years, the general merchandise category ("Torget") became the high-volume driver of the marketplace, increasing its reach to new customer groups.

Today, the company enjoys a strong market position as the 6th largest website in Norway in terms of online traffic and 96% national brand awareness. On average, every Norwegian visits the marketplace 258 times per year. Revenues originate from listing fees and displaying advertisements on the site. While the platform has a large number of contractual agreements on site, the financial settlement has mostly been fulfilled outside the platform directly among the transacting partners (explaining the difference in operating revenue and GMV). However, the company has recently started to increase its share of financial transactions by including payment, escrow, and delivery services directly on the platform as well as via adjacent services along the customer journey in the C2C business.

5.3 Findings: Validation of conceptual framework

In the following, the findings from the empirical investigation are presented in line with the proposed value logics (and sub-logics) in Table 24,[20] where each logic is investigated across the three different cases and key quotes are presented in Table 26, 27, 28 and 29.

5.3.1 Scale-driven value logics

Economies of scale

While the case of FINN relies on a more classical marketplace model without its own inventory, the importance of scale is more evident in the cases of Komplett and Zalando, which are platform companies that also operate with a wholesale model. Here, scale increases bargaining power toward suppliers and thereby lowers the sourcing costs, but, as argued in the conceptualization above, this value logic is not platform-specific as it applies to any business: "*This is not unique in any way for the platform. (…) It's similar to traditional retail, where buying power is very important. And being a mid-sized player is challenging. So yes, scale is important for our profitability" (Head of B2C, Komplett Group).* In the case of Komplett, the lack of economies of scale was one of the reasons they established a marketplace, but also the reason they had to close it down. *"Komplett had over the years expanded from computer electronics to a range of different product categories and sub-brands. These were very exciting projects, but also extremely costly and resource heavy projects. So, we either had to invest heavily to make them profitable, or we had to think completely different. And that's when the idea of a marketplace was founded" (Chief Executive Officer, Komplett Marketplace).* However, operating in a highly competitive and transparent market with price pressure, traditional multinational retail chains utilized their market power to bargain for even better prices from suppliers. This enabled the retail chains to match the online retail market (including Komplett) while still covering the costs of physical stores. In this way, retailers secured their market shares and gained a foothold in the increasing online market, hindering Komplett from

[20] Except for the customer-driven value logic, which is embedded in the interaction-driven value logic (see 5.2.2 Data collection and analysis), resulting in four overarching value logics.

reaching the sufficient size needed to benefit from scale—which was necessary to fund further growth.

In the case of Zalando, economies of scale enable efficiencies in operations (e.g., marketing, warehousing and logistics). However, as a result of these efficiencies, the platform can also lower the price of value-adding services (marketing and logistics) to complementors—fueling additional growth and scale effects: *"We're actually providing economies of scale to our third-party sellers on the platform" (Country Manager, Zalando).* In addition, scale has an impact on the sourcing costs of inventory that enable additional value capture through improved profits. But while the value capture mechanism of the value logic through efficiencies is confirmed, the value delivery of low price to customers is not always true, due to strict regulations of the pricing of branded products, outside of control by the platform: *"Lower prices mainly apply to the sales periods because we are required to adhere to the suggested retail price (MSRP[21]) by the brand. So, even if we have better deals on (the brand) than others, we cannot sell a particular shoe at a lower price than the competitors. But, of course, we are left with a higher margin per product" (Country Manager, Zalando).*

Nevertheless, while economies of scale generally apply to all businesses, the findings, however, indicate that there are some limitations to scale in traditional businesses that argue in favor of the platform model, that represents an interesting finding. *"Over the years, we had grown to a level where our biggest problem was to get hold of enough inventory. A rather interesting position to be in as an e-commerce player. And on top of this, the pandemic made this situation even more challenging with demands increasing further. And that's when we shifted gear and scaled up the Connected Retail program" (Country Manager, Zalando).* For Zalando, the platform model therefore became a solution to grow the company and obtain the benefits of scale without increasing the financial costs.

[21] Manufacturer's suggested retail price (MSRP) is the price that a product manufacturer recommends a product be sold for at the point of sale.

Size and growth of the network

With the size of the network comes improved reach for complementors, allowing the platform to match complementor supply with customer demand. As FINN highlights, size improves customer value through matching, thereby reducing customers' search costs. For the company, the size and growth of the network has had direct impact on the size and growth of revenues (Schibsted, 2023, p. 7). Despite this success, FINN continuously improves the functionality of its platform to not only stimulate further growth but also to capture a larger share of the value created, through, for example, changing the revenue model from listing fees and advertising to transactional revenues: "*You need to find a business model that captures value, and a transactional model is often a better way to capitalize on this value. Yes, you take a larger risk, but the upside is larger" (Chief Product Officer, FINN).*

To Zalando, the size of the network is a way to increase inventory and facilitate the matching of supply and demand, similar to the benefits from scale as described in the previous section, but also as a strategic move to access new local markets with low risk and tap into the complementors' knowledge, inventory, and customer base for growth (Markoff et al., 2022; Schröder, 2022a; Zalando, 2021). The greater the size, the more opportunities for improving matching, and increasing efficiencies and differentiation through "dynamic offer adjustment" to meet changing customer demand and adjust stock and capacity to various demand scenarios (Schröder, 2022b).

The ultimate goal for Zalando is to provide a one-stop-shop for fashion that will allow customers to find everything they need in one place (Zalando, 2021). In 2019, the company outlined its vision to be "the starting point for fashion," basing this vision on endless choice, seamless convenience, and a tailored digital experience (Markoff et al., 2022): *"What we're chasing is to get the customers to shop different product categories, to have the variety, the trust, needed to make the customers loyal to us. And, as we said a few years back, if you can't find it at Zalando, you won't find it anywhere else either" (Country Manager, Zalando).*

In the case of Komplett, gaining the necessary size of the network was a key target, although attracting many customers and generating high traffic to the platform was an expensive and difficult goal to achieve. As the company sees it, very few companies are in the position to obtain a size sufficient to benefit from scale (as discussed in the previous section), and even

fewer have reached the critical network size needed when launching a platform business: *"You know, Amazon didn't start out as a platform, and many others started with basic retail and built a significant customer base from there. It's the same with Zalando. And when you have that traffic, you utilize it and kickstart the growth (of the platform), just like we did at Komplett. So, I totally agree, once you prove that the platform model works, and your customers and complementors experience this, then the network effects start to play out, and then there are almost no limits. But this could never work if you were to start it from scratch" (Head of B2C, Komplett Group).* This perspective was also voiced by other informants at Komplett, who additionally highlighted the challenges of gaining a critical network size: *"If you and I were to build the world's best marketplace together in Norway, without a single customer, then we would have needed an awful lot of money, and lots of time, to build that traffic. And you have to buy a large share of that traffic (…) and then you need to have the capabilities for utilizing new tools, techniques, and technologies in e-commerce to get the visibility that you need" (Chief Executive Officer, Komplett Marketplace).*

Thus, the size of the network is important to enabling the value delivery of reach, to capturing value from efficiencies, and to realizing economies of scale. However, the size of the network does not necessarily imply a complete coverage of each product category but could also imply mechanisms of differentiation and reach in relevant subsets of the market. For example, the goal for FINN is *"to identify the tipping point where a customer experiences the most value between the sense of completeness at a generic level (generalist), versus offering a tailormade user experience in a smaller segment of the market (specialist)" (Chief Product Officer, FINN).* The challenge, as FINN sees it, is to counter competition from new players that are attacking a smaller share of the market while still providing value at a general level—and striking the necessary balance.

Network growth providing market access to complementors

In the case of Komplett, complementors gained access to new customer segments, thereby broadening the profile of its customer base. *"I remember one complementor who used to sell 10 high-pressure washers. And then, when we added them to the marketplace, all of a sudden, it sold 10 to 20 times more units immediately. Because we had the size of the network with many customers and the visibility this network represented if you had the right product to offer"*

(Chief Executive Officer, Komplett Marketplace). Therefore, as there was no problem attracting and connecting new complementors to the platform, Komplett pursued a growth strategy of adding one new product category to the platform every month before the operation was halted.

At Zalando, the network offers complementors a way to access a large customer base across Europe, reportedly increasing their sales (Markoff et al., 2022). While more than one-third of the total sales value is already provided by partners (i.e., brands and retail chains as large complementors), the network also allows small complementors (individual retailers) to enter the online space in a scalable way with existing brands already present on the platform, as well as providing their own brands. For example, the German jewelry brand LOLA reaches a new audience through Zalando, and has expanded its customer base far beyond their city and existing market (Zalando, 2024). Access to foreign, and thus larger, markets is, however, reserved for the large complementors in the Partner Program (brands), while the smaller complementors are generally not allowed to sell products in foreign markets (Zalando, 2021, 2022): *"We haven't opened up for cross-country selling (in the Connected Retail program) in many countries yet simply because we don't see a need for it at this time. We have enough customers to serve the complementors in their home markets as it is. But, in theory, this is possible, it just requires a setup in every market, and our competitor, Miinto, offers their retailers this possibility" (Country Manager, Zalando).*

In the case of FINN, its market position within certain product categories (e.g., real estate, used cars, and jobs) is so dominant that complementors are dependent on the platform simply to access the national market (Brosstad, 2021). It is also an easy way for complementors to start an e-commerce business and access a new market without having the necessary in-house resources and digital capabilities to develop and build their own e-commerce operation.

However, one challenge that FINN experiences is how complementors can take advantage of the platform's reach with the aim of attracting customers to their own website instead of fulfilling transactions on the platform: *"Many complementors use FINN to obtain visibility for their brand, and their primary target is to attract customers to their own online store rather than making transactions at FINN, so they use FINN only to obtain visibility" (Chief Product Officer, FINN).* At Komplett, a situation occurred in which complementors only listed products in direct competition with the platform's own inventory while keeping their unique products at

their own store: *"They were only targeting the traffic that we had to capture a share of our revenues rather than to contribute to the growth of the platform" (Head of B2C, Komplett Group)*. In other words, platforms do not exert market power alone as complementors also act opportunistically (exerting supplier power) to capture a larger share of the value created (by the platform).

Scalable technology solutions and infrastructure

Komplett, prior to the launch of its marketplace, successfully utilized its resources and capabilities to diversify the company into different product categories ranging from banking and mobile subscriptions to skincare and groceries, but entering a marketplace model required focusing its resources and capabilities on building and optimizing the core functionality of the platform: *"We had our own large department of IT developers, which is important for integrating these solutions. Even though we purchased a back-end module (platform software), quite a lot needed programming on our side to make it play" (Chief Operating Officer, Komplett).* It was therefore necessary to invest substantially in technology and infrastructure to make the marketplace work.

A similar situation also occurred at Zalando, which ended 2013 with a loss of more than EUR 100 million. They realized they needed to turn profitable to fund further growth and not lose confidence among their investors (Markoff et al., 2022). Recognizing data as key to drive future growth, Zalando therefore opened a research and development center in Ireland, employing more than 100 data scientists and engineers to foster capabilities in data analytics, machine learning, and artificial intelligence. The tech hub was soon complemented with another one in Helsinki, Finland. As the company grew, machine learning algorithms became crucial in estimating the demand and optimizing the inventory across each fulfillment center: *"Orchestrating this network is impossible if you do not have a data answer to the problem. It simply cannot be figured out manually" (Chief Operating Officer, Zalando. In Markoff et al. (2022)).* In other words, scalable technology solutions and infrastructure were needed to reduce costs and improve profitability. Today, the inventory is optimized daily, with calculations of which products and how many of each should be available at every location: *"Stockholm has a completely different product mix than the one in Madrid in terms of prices, colors, sizes. Just about everything is different" (Country Manager, Zalando)*. Thereby, the company tackled the

complexity of transportation costs, short-term externalities, such as weather, and seasonal changes to reduce the risk and cost of inventory (Markoff et al., 2022).

Also, from the customer's side, data improve the value delivery of matching and convenience and reduce search costs: *"What data first and foremost do is build loyalty because we are able to reduce the errors being made. We're able to show the right product, what the customer is actually searching for, and sizes and colors too, so this is what's most effective, in addition to the scale benefits in sourcing and marketing" (Country Manager, Zalando).* However, due to marketplace regulations in the EU,[22] there are some limitations to the use and sharing of data that hinder further efficiencies. For example, Zalando does not allow the use of data from its Connected Retail complementors to optimize inventory in its wholesale operation.

Similar to Zalando, to gain further efficiencies in its operations, FINN has also started to move away from proprietary solutions and toward building scalable technology across Nordic marketplaces in order to improve the customer experience: *"We hope we will be able to deliver even higher customer value because we see a greater degree of specialization in marketplaces, where the needs and experiences of customers differ across categories. It's not the same selling a t-shirt and a car. But today, the customer journey is very similar across categories, so we're going to do something about that" (Chief Product Officer, FINN).* Also, FINN's initiatives include systems and solutions aimed at assisting complementors in their decision-making processes to improve the value delivery of matching: "*Where we've come furthest is within car and real estate listings, where we have made and modified insight tools for the complementors to enable them to become more data-driven in their decisions" (Chief Product Officer, FINN)*. Besides improving the core functionality of the platform, these tools also generate a separate revenue stream, as complementors pay for these solutions and for access to the data.

[22] The Digital Services Act (DSA) and the Digital Market Act (DMA) form a single set of rules that apply across the whole EU to create a safer digital space and to establish a level playing field in Europe and globally. Source: The European Commission, https://digital-strategy.ec.europa.eu/en/policies/digital-services-act-package

TABLE 26
Key quotes: Scale-driven value logics

	Zalando	Komplett	FINN
Economies of scale and price competition	"There is a lot of inventory risk, and you also have to pre-finance all that inventory, and that just sets limits to the growth that you can actually achieve" (Chief Operating Officer, Zalando, in Schröder (2022a))	"At some point, you get to a level with category extensions where it no longer makes sense to keep all the inventory yourselves. It is not enough turnover of goods. So, we introduced the marketplace model where we utilized the large online traffic that we had" (Head of B2C, Komplett Group).	"The volume game that we used to talk about (…) I think that has changed a bit. You can get profitability by having a superior service at a smaller scale, it's about finding a business model that captures that value in a good way" (Chief Product Officer, FINN).
Size of customer/ complementor network	"To us, the marketplace or platform is a way to either reach the customers faster or provide a different kind of variety" (Country Manager, Zalando).	"This is what is difficult, right, because the network of customers and complementors, that's the chicken-or-egg dilemma. If you don't have any traffic, then no complementors bother to join. And if you don't have complementors and a sufficient range of products, then no one wants to visit you. And this is where you either have to be in the game from the beginning, like Amazon did, or you have to do something radically different, disrupting something" (Head of B2C, Komplett Group).	"A large-sized network provides customers with a sense of completeness; that they don't have to go to other places to cover their needs" (Chief Product Officer, FINN).

TABLE 26 CONTINUED
Key quotes: Scale-driven value logics

	Zalando	Komplett	FINN
Network growth providing market access	"We definitely see that complementors are attracted to the size of our network, and the value that it represents (…) we also use our partners in our own marketing, both to customers, but also to attract additional retailers (complementors) to the platform" (Country Manager, Zalando).	"Besides providing access to a larger market, we also offered a different market segment, that complementors hadn't reached before. So, it was no problem getting new complementors to sign up, our problem was to onboard and integrate them fast enough" (Chief Executive Officer, Komplett Marketplace).	"This is a benefit of being a one-stop shop covering so many aspects of people's lives, that it's attractive to complementors. And we realize the (monopoly) position that we have, and are aware of not abusing it, and we have used the term 'the nice giant' in our communication in how we relate to the market" (Chief Product Officer, FINN).
Scalable technology solutions and infrastructure	"It was time to focus on driving efficiency and operational excellence, so we started to standardize and automate our logistics processes and to build proprietary and scalable technology solutions and infrastructure" (Chief Operating Officer, Zalando. In Markoff et al. (2022))	"We noticed very early the need for high investments to make the marketplace work. In terms of scale in IT, but also in terms of organizational resources. Even if our partners (complementors) were happy, we weren't anywhere near where we needed to be to make this profitable. We needed a much higher scale" (Head of B2C, Komplett Group).	"We recently changed from a national marketplace organization to a Nordic organization. We're keeping the national brands, but the back-end solutions are similar to a white-labeling strategy of the product—across countries. We need this to be able to meet the need of higher specialization at the category level and improve the value delivery to our customers" (Chief Product Officer, FINN).

5.3.2 Complementor-driven value logic

Complementor network size

FINN, as a pure intermediary with no own inventory, relies on complementors to provide the content for exchange, and, as such, the platform would simply not exist without complementors. Originating from newspaper classified advertising, the chicken-or-egg dilemma (Altman & Tushman, 2017; Caillaud & Jullien, 2003; Hagiu, 2014) was partially solved at the beginning of the company's operations, however, within a few years of operation, the company demonstrated network effects, gained further growth into new product categories, such as the generalist marketplace (Lome & Andersen, 2019), and proved the link between a high market share and profitability in a "winner-takes-all" network market (Basaure et al., 2020; Hossain & Morgan, 2013; McIntyre et al., 2020; Rietveld & Schilling, 2021), capturing value from both transaction fees and advertising revenues.

In the case of Komplett, the company was one of the most visited online stores in the Nordics, and the platform model was a way to expand its business and gain efficiencies on the basis of existing traffic. *"It was a different approach to growth compared to the traditional (organic) growth model based on strong brands and e-commerce capabilities that we had previously pursued" (Head of B2C, Komplett Group).* However, besides supporting the sub logic of complementor network size, an additional benefit of transforming to a platform model was how the combination of a strong brand (Komplett) with the variety provided by complementors increased rankings in search engines, an important measure to drive organic growth. Compared to a traditional wholesale model, increasing variety via complementors therefore affected the performance of new as well as existing product categories due to improved search rankings.

Also, for Zalando, the value of complementors is apparent as it gets access to a larger variety of brands and product offerings, allowing customers to reach their favorite local shops (Zalando, 2021), and benefit from higher availability (Zalando, 2022). After several years of growth, Zalando's biggest problem was getting ahold of enough inventory. The demand was much higher than the platform was able to supply and, when the COVID-19 pandemic occurred, the situation became even more precarious: *"We had more than twice as many customers than we had inventory to cover. Therefore, we scaled up the Connected Retail program, connecting physical stores directly to the Zalando platform more rapidly than we had planned for"*

(Country Manager, Zalando). Thereby, Zalando broadened its scope beyond the Partner Program by onboarding a wide range of small- and medium-sized complementors on the platform with the Connected Retail Program: *"It's a classic way of getting access to a wider range of products but also an opportunity to distribute products from warehouses other than your own" (Country Manager, Zalando)*, even if this increased the competition on the platform from complementors offering the same product listing as Zalando itself (see Appendix 8 for an example of head-on competition between platform and complementor).

An increased variety of products also creates value for customers by empowering their decision-making, reducing search costs, and increasing convenience: *"Customers like to do research, and if we make it easy for them to make their decisions, we also get a higher conversion rate for the platform" (Chief Operating Officer, Komplett Marketplace).* FINN also found that providing a single option for purchase returned a lower conversion rate than if the customer was presented with several options. This is because customers feel more confident making decisions when they have options to choose from: *"So, even if we, with the help of algorithms, could say: 'dear customer, this is the best option for you', the perceived or experienced value would be lower than if they had options to choose from"* (*Chief Product Officer, FINN).*

Similar to utilizing complementors to reduce inventory costs on future growth or the scaling of the business as described in the scale-driven value logic, another efficiency pertains to how complementor-provided content offers the opportunity to rationalize existing inventory: *"You can scale down your own inventory, where you don't have to keep the unprofitable parts of product collections because you are able to offer this at no cost" (Chief Operating Officer, Komplett Marketplace).* But even though complementor-provided variety reduces risk related to inventory, Zalando carefully evaluates the level of variety needed to provide customer value while securing its own profitability: *"I think we're going to go one step back because, if the customers are mostly looking for a dark-blue crew-neck sweatshirt or a white t-shirt, you don't need 2,000 complementors for that. And when wholesale is so much more profitable to us than the marketplace model, then, as long as we're allowed to do so (…), it's obvious that we will try to nudge the customers to select the option that is most profitable for us" (Country Manager, Zalando).*

From Zalando's point of view, the platform model is only truly profitable with premium-priced products that return a reasonable commission—in other words, a differentiation mechanism. However, what makes this even more complex is the fact that brands (complementors), on their end, retrieve better margins by selling through a marketplace model than by distributing to a wholesale model: *"So, we see a large shift, at least among the strongest brands, that tries to move a step away from the wholesale model by focusing on their own channel and, to a larger extent, marketplaces" (Country Manager, Zalando)*.

Complementor innovation and outcomes of innovation

Rather than relying on the market to self-regulate its product offerings, Komplett worked tirelessly to approve complementors at a certain level of quality: *"We were quite concerned regarding quality. It was key for us to attract complementors that we knew could offer product and service quality after Komplett's standards. And that's why we started with Norwegian retailers with products in stock" (Chief Executive Officer, Komplett Marketplace)*. The target for the complementary products was that they should be equally good or better (than Komplett's own inventory) in terms of price and quality. However, the operations did not run long enough to identify further quality improvements among the existing complementor base.

At FINN, on the other hand, complementors have improved their offerings from product listings to offer a more complete value delivery, including supporting services: *"Both insurance and financing (of products) are two examples where open competition among complementors has resulted in increased quality or innovation of the offerings" (Chief Product Officer, FINN)*.

At Zalando, a typical example was how complementors offered different qualities and price levels of the same brand according to the needs of the local market: "*If we look at the Ralph Lauren brand, Norwegian retailers purchase Ralph Lauren items at a higher price range than what Zalando sources for its own wholesale inventory. This means that even if we currently have a large inventory of Ralph Lauren products, we extend the range (variety) of the brand (with complementors) to meet the needs of the local customers in a better way, responding to the expectations of the local customers (..) and of course, the opposite might be true in other markets with lower buying power, where complementors extend our range at the low end of the market" (Country Manager, Zalando)*.

Thereby, the cases demonstrated both how the market is self-regulated, where complementors innovate to improve the value delivery, but also how platform owners apply measures (through governance and regulations) to secure the quality of the content provided by complementors.

TABLE 27
Key quotes: Complementor-driven value logics

	Zalando	Komplett	FINN
Complementor network size	"(…) brands can integrate their stock directly on our platform. The resulting broader assortment and higher product availability help extend our customer base—which, in turn, draws even more brands to Zalando" (Zalando, 2022).	"The combination of a known brand and large variety increases the rating on Google, and we increased our visibility in searches, affecting the overall performance of the company" (Chief Operating Officer, Komplett Marketplace).	"This is one of the fundamental logics of our platform, that we have provided since the very beginning: connecting a buyer and a seller. We are really just a facilitator—where you can list something for sale, or find what you are looking for" (Chief Product Officer, FINN).
Complementor innovation	"Complementors not only increase the breadth of our selection but also its depth, in a different way, more adapted to the needs in the local markets. They have the knowledge, they are experts in their markets, even without the data that we have" (Country Manager, Zalando).	"It's the inevitable thing with quality control. If you get products that are of low quality, it destroys your (platform) brand and reputation, even if it is supplied by a complementor" (Chief Executive Officer, Komplett Marketplace).	"Customers base their choice on more than the price, and complementors are constantly increasing their quality to be competitive" (Chief Product Officer, FINN).

5.3.3 Scope-driven value logic

Utilization of excess capacity

The backbone of Komplett was the largest and most well-functioning automated warehouse in the Nordics, which provided the necessary efficiencies to reduce prices for customers. Once the core functionality of the platform was up and running, the warehouse was easily utilized to generate additional revenues from external customers: *"Our next step was to offer fulfillment and use the logistics hub to include high runners and assist the complementors with their logistics, because logistics was probably our biggest competitive advantage at the time" (Chief Operating Officer, Komplett Marketplace)*. The second step was to capture value from advertising, *"similar to the way Google operates, with targeted advertising against customer segments" (Chief Operating Officer, Komplett).* However, following the restructuring of the company and the closing of the marketplace, all excess capacity in technology development was reduced to a minimum to increase the profitability of the core operations before making any new growth initiatives.

Zalando, on the other hand, following their automation and advancement of logistics processes, started providing logistics and fulfillment services for external retailers: "*We've become a logistics company as well" (Country Manager, Zalando)*. This allowed the company to generate new revenue streams from complementors but also from partners outside the platform through Zalando Fulfillment Solutions (Zalando, 2022) and Zalando's multichannel fulfillment (Genz & Schneider, 2023). In addition, Zalando began generating revenue from Zalando Marketing Services (ZMS). ZMS offers creative services that brands and retailers can use in their own channels or local markets in addition to improving performance on the Zalando platform itself. Zalando combines data from its platform with experience in marketing and campaign management to offer unique solutions for brands and retailers (Genz & Dembeck, 2022a). In addition to logistics and marketing services, the platform also offers photography services from Zalando's in-house photo studio at extremely low prices compared to traditional commercial photography.

In the case of FINN, excess capacity has been utilized in development of tools and services to support complementors in their own operations based on customer data (e.g., insights tools), and by employing the customer base to drive traffic to services outside the platform in return

for new revenue streams. Examples of the latter are "MittAnbud" (similar to TaskRabbit), a marketplace for handyman services, "Lendo", a marketplace for mortgage and financing offers, and "Honk", a car subscription service (Schibsted, 2023).

Scoped capabilities of data analytics and insight

In Komplett's case, product recommendations were adapted to each customer, based on user behavior, previous purchase history and customer profile, personalizing the customer experience of the platform. Also, the algorithm allowed head-on competition between complementors and the platform without making any preference for the platform's own inventory or profitability: *"The algorithm we had was one of the things that annoyed people internally the most" (Chief Executive Officer, Komplett Marketplace)*. The reason for having a "fair" algorithm, was to create trustworthiness and attractiveness in the complementor market and to deliver the best value possible to customers.

At FINN, collaborative filtering[23] is used to personalize the user experience. Relying on data, the algorithm makes assumptions based on other users' behavior to provide individual suggestions for individual users: *"It has proven to be very effective, these recommendations" (Chief Product Officer, FINN)*. Still, there is a continuous process of fine-tuning the algorithm to provide suggestions for relevant purchases rather than peculiarities or entertaining listings and to avoid the "digital bubble" of getting increasingly narrower results from recommendations that do not take into account the wider range of customer interests (Vogt, 2022). However, personalization is only one attribution of data, and data are continuously used in the company to improve core functionality and to experiment with new ideas (Lome & Andersen, 2019). One example is how the company has started exploring how to combine its own data with complementors' data to not only improve the customer experience and build loyalty but also to strengthen the platform's market power toward complementors.

Following the data-driven approach to optimizing inventory, Zalando continued with machine learning algorithms based on customer purchase and return data to reduce the number of

[23] Collaborative filtering is a method of making automatic predictions (filtering) about the interests of a user by collecting preferences or taste information from many users (collaborating).

returned items, both improving the customer experience and increasing efficiencies by reducing size-related returns. *"With every item shipped and sent back, we can learn more about the customer's body (…) Since this reduces unnecessary returns, it has a positive impact on the environment and makes us more efficient" (Chief Operation Officer, Zalando. In Markoff et al. (2022)).* Then, in 2022, Zalando launched a virtual fitting room where customers could see how different sizes of the same item would fit on a three-dimensional avatar of their body shape. But the company is not stopping there. The next[24] step is a body measurement feature that customers can use to receive personalized size recommendations based on their unique body measurements by uploading two images of themselves (Zalando, 2022).

Besides improving product recommendations, data analytics is also the center of customer communication at Zalando. Combined with marketing expertise and know-how, the data-driven approach drives successful results. *"It's about the quality and the volume of the data that we have, where we see that when we combine that kind of data with our marketing activities, we get extremely successful results from our campaigns" (Country Manager, Zalando).* Examples include the Zalando Plus loyalty program, where members visit the platform more frequently and spend more (Zalando, 2022), and local marketing campaigns in which Zalando combines its insights with endorsements of key complementors (often called lighthouse retailers) to tap into the complementor's own brand audience (attract new customers) and attract additional complementors in the market.

Scoped capabilities of customer orientation and relationship management

When launching their platform business, Zalando applied strict governance rules and regulations to ensure a consistent brand experience throughout the platform. For example, complementors offering identical products are not allowed to compete on price but must adhere to a fixed price. However, Zalando also invests in their complementors and their communities, such as sponsoring the "Copenhagen Fashion Week", and investing in firm boundaries and interfaces through partnerships, such as with Nike, where Nike's club members get access to

[24] On July 17, 2023, Zalando launched this feature in a selected market for women's tops and dresses: https://corporate.zalando.com/en/technology/zalando-launches-size-recommendations-based-customers-own-body-measurements

Zalando's Plus services and vice versa (Genz & Dembeck, 2022b; Zalando, 2022). Zalando also integrates with local payment providers in each market to improve both complementor efficiency and customer experience and to create trust for and loyalty to the platform—despite adding complexity to the backend-system: *"It has increased the complexity, and it has been a massive investment as well. But it's so important to make the shopping experience as smooth as possible, otherwise the customer turns to a local provider or accepts a lower variety of products from a different provider" (Country Manager, Zalando).* Complementors are also invited to attend Zalando's partner conference at its headquarters twice a year, and there are monthly online meetings, with the common goal of sharing ideas and building a strong complementor community.

Komplett developed integrations and APIs with popular e-commerce technology platforms that increased the efficiency of onboarding a large number of complementors, permitting them to connect their existing e-commerce solutions to Komplett's Marketplace. Komplett also provided tools to help complementors optimize their platform performance and assisted complementors in improving their marketing performance outside the platform: *"We had a very partner-friendly approach, quite different from how other platform companies operated" (Chief Executive Officer, Komplett Marketplace).* The next step was to launch complementor communities and events to exchange ideas and experiences on how to succeed on the platform.

FINN also integrates complementors' own systems, making the platform easy to use for complementors, securing volume and building loyalty to the platform. *"This initiates a dialogue with the complementors that otherwise would have been difficult" (Chief Product Officer, FINN).* In this way, FINN give advice on their products, and recommend additional services (upselling) that both increase the complementor's performance, as well as their own profits. As with Zalando, FINN also hosts annual complementor events and participates in complementors' own communities. These groups are also used for product development purposes, ensuring mutual value creation for all participants on the platform. Still, developing these relationships can be challenging as industry associations are concerned about the market power of FINN and the potential abuse of their dominant position (Hopland & Resvoll, 2022).

TABLE 28
Key quotes: Scope-driven value logics

	Zalando	Komplett	FINN
Utilization of excess capacity	"For example, Zalando Marketing Services is something we offer our complementors to use both at the platform and in their own channels or markets. And I think this has become much larger than we really thought, because it provides such good return-on-investment" (Country Manager, Zalando).	"With the largest Autostore-installation in the Nordics, there were plenty of opportunities to capture value from logistics services, for example, this was one of many new projects we never got the chance to pursue" (Chief Operating Officer, Komplett Marketplace).	"We have developed insights tools to enable our complementors to become more data-driven in their decisions. And these are services that generates new revenue to FINN" (Chief Product Officer, FINN).
Scoped capabilities of data analytics and insights	"We use data to provide personalized size recommendations and improve the customer experience in the app and on the website" (Country Manager, Zalando).	"We applied personalization technology, to increase the relevance for each customer, based on their user behavior and purchase history. I'm sure we could have tuned this better, but it worked pretty well already then" (Chief Executive Officer, Komplett Marketplace).	"Together (own and complementors' data), this will make a unique combination that strengthens our position towards complementors because we will offer something that no one else is able to offer" (Chief Product Officer, FINN).

TABLE 28 CONTINUED
Scope-driven value logics

	Zalando	Komplett	FINN
Customer orientation and relationship management	"The fundamental idea at Zalando is that if our brands are strong, then Zalando is strong too, so we invest a lot to make our partners succeed" (Country Manager, Zalando).	"We had a designated team, training our complementors in the onboarding phase. Also, by developing integrations to the most common e-commerce software up front, we enabled a fast-track for new complementors to connect to our platform" (Chief Operating Officer, Komplett Marketplace).	"We are trying to make it as easy as possible for the complementors to integrate their own systems with FINN. For us, this is valuable because we want as large a volume as possible (…) and it also creates an opportunity to engage more strongly with the complementors, being an advisor in how complementors can increase their performance on the platform" (Chief Product Officer, FINN).

5.3.4 Interaction-driven value logic

One-sided customer interactions

In the one-sided customer interaction logic, customers can be expected to exchange content through ideas and questions and to interact freely without the influence or moderation of the platform. However, there were few examples of one-sided customer interactions among the cases examined in this study.

Komplett tried to establish discussion forums on its e-commerce site in Sweden, and partially succeeded, but this was not part of its marketplace initiative. As Komplett sees it, the existing online forums within their core product categories are quite strong, and the company believes it is difficult to achieve the necessary trustworthiness to convince customers to move their interactions to their platform, but acknowledge how customer interactions would generate loyalty, reducing acquisition costs and also opportunities for new revenue streams.

Zalando has introduced live shopping as a first step in integrating customer interactions, allowing customers to leave comments and have discussions during live events. The company realizes that creating Zalando communities might be the next step, but it is still quite far from taking this step in Europe or making the necessary investments.

One-sided complementor interactions

As with one-sided customer interactions, none of the cases had established any one-sided complementor interactions on their platform. Zalando and FINN, as discussed under the scope-driven value logic of relationship management above, facilitates such interactions through online meetings and physical conferences (off platform) in which it allows complementors to share ideas and ask for help in solving challenges: *"Quite often there is another complementor that sits on a solution to the problem, right. So, those sessions are highly valuable (Country Manager, Zalando).*

Cross-sided customer and complementor interactions

To FINN, cross-sided interactions are an important source of value, particularly evident within the C2C segment, where value is exchanged between individuals rather than between a customer and a professional seller. The dialogue usually take place before a transaction is made,

and interactions are therefore important in building trust among the transacting partners. Similar to Amazon and eBay, FINN includes seller ratings, but differently, they also include buyer ratings: *"We did a lot of testing in terms of openness, whether we needed moderation of the feedback or not, and whether to allow a rating of the dialogue itself. But one of the things we decided upon was to only allow ratings of sellers and buyers after a transaction was made, and only between the transacting partners (Chief Product Officer, FINN).* In addition, data from interactions are used to analyze the customer journey, to identify whether transactions are fulfilled, to improve the functionality of the platform, and, in governance procedures, to identify unserious sellers or buyers or to identify illegal activities.

Komplett also recognized the value of reviews and ratings, how it builds trust in the purchase process, including the platform and the complementor, and as an aid in the purchase decision of a good. Conversely, the company also experienced how bad ratings kill sales and have a negative effect on the platform's reputation. As customer service was provided by the platform for all products offered, a significant amount of resources were used to engage in customer interactions across a variety of complementors to solve any issues and *"keep customers happy" (Chief Executive Officer, Komplett Marketplace).*

In Zalando's case, customer-provided feedback provide value to complementors by transmitting content requests and suggestions for improvement of their products or product information (e.g., description of fit) following each product listing: *"Again, because of our size, we get so much feedback, right. So many of our complementors use this feedback in their product development, and they can rapidly identify if there are any issues with their products that they need to address or modify" (Country Manager, Zalando).* However, different from a traditional product review, Zalando removed the online form and display of product reviews on the platform as of September 2023, and introduced a customer survey instead based on the product information of the purchased item (Ortiz, 2023). In addition, Zalando handles all customer service inquiries for their complementors, gaining efficiencies, reducing returns, and improving the quality of customer service (differentiation): *"It makes it easy for us to be consistent in our feedback and how to treat customers. Because if we had left this to the complementors or some other third-party provider, you never know whether they would accept returns and follow the regulations" (Country Manager, Zalando).*

TABLE 29
Key quotes: Interaction-driven value logics

	Zalando	Komplett	FINN
One-sided customer interactions	"I strongly believe in creating communities, where customers share reviews and recommendations and so on. And this is where we are far behind Asia, they are 10 years ahead of us, and we're far away of making that kind of investment" (Country Manager, Zalando).	"If you succeed in this, it will generate strong loyalty effects and drive organic traffic to the platform, where customers return frequently, and for free" (Head of B2C, Komplett Group).	"Yes, these interactions take place at other places than on the FINN platform. But because 'the entire population' of Norway are on FINN, we have focused on interactions related to the transactions" (Chief Product Officer, FINN).
One-sided complementor interactions	"Even if they are competitors, operating in the same market, once they're out of that context and brought together in complementor events, they acknowledge that they are all working with Zalando, and therefore they are committed to finding the best solution for everyone" (Country Manager, Zalando).	"This was in our pipeline, but we didn't have time to refine it. We were busy getting the marketplace up and running, onboarding as many complementors as possible" (Chief Executive Officer, Komplett Marketplace).	"We facilitate for such interactions to take place, because it improves the effect for the complementors, and hence the success of FINN. But we also recognize that the large complementors interact in their own arenas where we cannot participate. This is because of our dominant market position, which not everyone is so fond of" (Chief Product Officer, FINN).

TABLE 29 CONTINUED
Interaction-driven value logics

	Zalando	Komplett	FINN
Cross-sided customer interactions	"I think we need to find a way to communicate with the customers to a greater extent than what we have done so far, to really be successful. And I think many of the Asian platforms have managed this with their 'social shopping' features" (Country Manager, Zalando).	"Reviews and ratings were very important to us. Good reviews drive sales, so we had a very good program for this, with both product ratings and complementor ratings" (Chief Operating Officer, Komplett Marketplace)".	"In addition to seller rating, we also have a rating of buyers to build trust in the marketplace and make it more safe (Chief Product Officer, FINN).

5.4 Discussion of the findings

In support of the scale-driven value logic, all cases confirmed that scale is an important determinant of platform value. Scale increases efficiencies in operations as well as market power but it also offers possibilities in differentiation. As such, the platform model has proven to be an effective way of increasing the variety and depth of product categories, adapting to local markets, and allowing a faster scaling of the business at low risk. As more platform-specific instances of the scale-driven value logic, the cases and associated findings also support the value of size as an important source of value for obtaining reach and matching supply and demand. As conceptualized through the value logics, network effects reinforce or amplify value logics, building on size and reach and demonstrating how the platform model differs from traditional business models concerning growth and gaining benefits of scale. However, while network size is considered important, it is also relative to market size, meaning that it is possible to build a successful platform position in a smaller niche market as well. This was evident in the case of FINN, which applies a strategy with "verticals" specializing the customer journey according to different categories to meet local competition while simultaneously utilizing scale efficiencies in infrastructure and common components. All cases also demonstrated the connection between size and reach, which permits complementors to gain access to an existing large market or a new market or to reach a new customer segment in a scalable and cost-efficient way, a logic that further increases platform efficiencies and market power. However, there is also a risk that complementors might act opportunistically and utilize a platform's network to gain visibility for their own brand and easily switch between platforms depending on which provides the most value for them. This was particularly the case for FINN and Komplett, both of which suffered from opportunistic behavior, whereas Zalando perceived the benefits of strengthening local retailers as a strategy to build strong ties with its complementors. Finally, while I conceptualized how the scale of data affects the value delivery of matching and the value capture opportunities of efficiencies and differentiation, the findings revealed that operational efficiencies and technologies supporting the core functionality of the platform are so important for platform growth that they deserve to be specified as a distinct value logic. Here, the case companies highlighted the importance of building scalable technology solutions and infrastructure, using data as a resource (i.e., data is now embedded in this logic) to improve core functionality (matching, convenience, reduced search costs) and, at the same time, achieve

necessary efficiencies (e.g., inventory and logistics management) to fund the growth of the platform and realize the effects of economies of scale.

Concerning the complementor-driven value logic, all three cases verified the assumption that complementors create value in a platform by providing it with content, increasing product variety and accessibility (convenience), reducing customers' search costs, and increasing customers' confidence in purchase decisions. As conceptualized, this logic is strongly associated with the scale-driven value logic for creating value for the platform and plays a role in reinforcing network effects. The cases also demonstrated how variety not only concerns a wide range of options (category breadth) but also depth, offering products tailored to the needs of local markets. This combination of breadth and depth further allows for the differentiation of offerings by the platform. The cases also demonstrated how platforms exert market power to gain growth by utilizing complementors' market position to access their market space and customer base as well as reducing the costs of own inventory. Support was also found for the complementor innovation logic, whereby complementors, besides providing variety, also affect the quality of the products offered and how the platform captures value through efficiencies and differentiation. Due to competition and easy comparisons of the options offered, quality products are easily favored among customers. Little evidence was found regarding specific innovation activities by complementors but, similar to how the platforms shift the costs of inventory to the complementors, they also shift the risk of innovation to the same participants. Further, the platform companies do not necessarily leave this solely to the market to self-regulate but instead typically apply governance mechanisms to ensure a certain level of quality of products and services. Finally, while the literature mainly focuses on the benefits of complementor value, one potential conflict is the risk of brand dilution when broadening the scope of product categories through complementors. One example of this is how Komplett alienated its core customers, who responded negatively to the extension to a platform model. For platform companies also operating with a wholesale model, the challenge is to find the right balance between the wholesale model at higher margins and high risk and the platform model with lower margins and low risk of brand dilution.

Moving to the scope-driven value logic, the three cases demonstrated how economies of scope are an important source of value for platform companies, including the utilization of excess capacity, data capabilities, and capabilities in managing customers and complementors. For

example, Zalando demonstrated how it has become a logistics company, generating revenues from complementors but also from partners outside the platform. Together with expertise in digital marketing, several value-adding services are provided to improve value for complementors but also to generate new revenue streams and increase efficiencies due to scale. In utilizing data through analytical capabilities, a common value delivery among the cases was personalization and product recommendations through algorithms, improving the customer experience, increasing efficiencies, and driving customer loyalty. However, I also discovered that the platforms themselves discuss how the algorithms operates, which reconciles the discussion in the literature about fairness in, e.g., algorithmic recommendations. The capability of relationship management as a source of value was also found in all three cases, but it mainly applied to investments in firm boundaries and interfaces, providing APIs with complementors' own infrastructure, combined with a few initiatives to build complementor communities to share knowledge and help complementors succeed on the platform. As an official target, the platforms reduce the entry barrier for complementors and make it easier for them to onboard—but, in reality, the platforms utilize this tactic to gain growth, build strong ties, and increase market power.

Finally, in the interaction-driven value logic, the platform managers identified with the one-sided customer interaction logic, but there were few examples demonstrating this value besides a couple of smaller initiatives, such as the attempt to build an online community by Komplett and the live shopping feature by Zalando. Still, the platforms identified with how such interactions may build loyalty and drive organic traffic to the platform, which would also allow for additional revenue streams (interaction fees, advertising). However, they had yet to determine how to approach this form of interaction. The same finding also applied to one-sided complementor interactions—i.e., the platforms identified with the logic and acknowledged the potential of direct interactions between complementors but currently did not make any effort to facilitate such interactions other than the activities discussed in the scope-based logic of relationship management. Such interactions could, however, motivate complementors to invest in the platform in return for improved matching, creating loyalty or strong ties with the platform. Regarding the cross-sided interactions, all three cases highlighted the value of connecting customers and complementors through the platform. This form of communication builds trust among the transacting partners but also serves the important function of reducing

other customers' search costs when evaluating and comparing product (and complementor) options. For the platforms, customer-provided content also plays an important role in improving the functionality of the platform, in gaining insights into market entry decisions and in developing and implementing governance practices. In particular, the customer-driven content of reviews and ratings were most prominent in terms of creating value, although with differences across the case companies. For example, it is somewhat surprising to see that Zalando has removed product reviews from their platform after several years, replacing it with a customer survey, while for example Amazon increase their emphasis on reviews.

In sum, the three cases generally provided support for the proposed value logics, with minor exceptions or deviations from the conceptualized relationships (see Table 30). I did not find examples of all suggested relationships, but I was able to shed light on important nuances that were not clarified in the extant literature. Also, the cases demonstrated how the platforms differ from each other, and I thereby recognize that not all logics apply to the same extent to all marketplace platforms. Consequently, a validated and refined framework of the proposed value logics as they may occur in a platform business model is presented below (Table 31). Still, these value logics are viewed from the platform company's perspective and were validated among platform managers. Naturally, the question arises as to whether what creates value for the platform also creates value for customers and complementors from their perspective. In other words, are the proposed value logics reflected in beliefs among customers and complementors? I addressed this question in the next study.

TABLE 30

Key findings: Validation of value logics

Logic	Sub logic	Validation by case
Scale-driven value logics	Economies of scale	As traditional businesses, but the platform model allows faster scaling at low cost.
	Size of network	Size is important to deliver matching of supply and demand and realize economies of scale, and it is reinforced by network effects. Network size might be dependent on relevant market size.
	Network growth	Access to new markets or customer segments for complementors in a scalable and cost-efficient way, but low switching costs and opportunistic behavior by complementors reduce market power.
	Scalable technology solutions and infrastructure	Necessary to realize efficiencies and growth. Data improves core functionality of platform, reduces costs, builds loyalty, and generates a new revenue stream.
Complementor-driven value logics	Complementor network size	Complementors increase variety and accessibility and reduce search costs. Efficiencies and differentiation mechanisms are realized.
	Complementor innovation	Complementors improve quality of products and services, reducing innovation risk for the platform. Self-regulating market mechanisms, but also dependent on platform governance. Risk of brand dilution.
Scope-driven value logics	Utilization of excess capacity	Excess capacity provides value to complementors at low cost, generates new revenue, and increases returns to scale.
	Scoped capabilities of big data analytics and insights	Improves customer experience and increases efficiencies, builds customer loyalty.
	Scoped capabilities of customer orientation and relationship management	Improves customer experience and loyalty. Complementor onboarding increases efficiencies (growth) and market power.
Interaction-driven value logics	One-sided customer interactions	Future potential for loyalty effects, organic platform growth, and new revenue streams.
	One-sided complementor interactions	Potential for improved matching and customer experience, strengthens complementor loyalty/ strong ties through platform-specific investments.
	Cross-sided customer and complementor interactions	Builds trust among transacting partners and reduces search costs. Content (data) utilized to improve core functionality, exercise governance, and enhance product entry.

TABLE 31
Validated conceptual framework: Value logics

Logic	Sources of Value Creation	Means of Value Delivery	Mechanisms of Value Capture	Platform-specific Logic?
Scale-driven value logic	Economies of scale	Competitive prices	Efficiencies Market power	No
	Size of network	Reach Matching supply and demand Reduced customer search costs	Efficiencies • Increasing returns to scale • Reduced transaction costs Market power Differentiation • Pricing	Yes
	Network growth	Access to new markets/network access for complementors	Market power • Entry barrier Differentiation • Pricing • New market entry	Yes/No
	Scalable technology solutions and infrastructure	Matching supply and demand (at scale) Reduced search costs Convenience	Efficiencies • Reduced transaction costs • Realize economies of scale/platform growth Differentiation • New revenue streams	No/Yes

TABLE 31 CONTINUED
Validated conceptual framework: Value logics

Complementor-driven value logic	Complementor network size	Product variety Reduced search costs Convenience	Efficiencies • Reinforcing network effects/platform growth Differentiation • Pricing • Customer loyalty	Yes
	Complementor innovation	Product quality	Efficiencies • Reduced inventory risk Differentiation • Pricing • Customer loyalty	Yes
Scope-driven value logic	Utilization of excess capacity	Diversification	Efficiencies • Increasing returns to scale Differentiation • New revenue streams	No
	Scoped capabilities of big data analytics and insights	Personalization and customization	Differentiation Price premium Multiple revenue streams	No
	Scoped capabilities of customer orientation and relationship management	Improved customer experience Empowerment Trust	Efficiencies • User acquisition Differentiation Market power Customer loyalty and repurchase intention	No

TABLE 31 CONTINUED
Validated conceptual framework: Value logics

Interaction-driven value logic	One-sided customer interactions	Quality of interactions • Reduced customer transaction costs	Differentiation • Interaction-driven revenues	No
	One-sided complementor interactions	Trust in platforms for complementors • Improved matching	Differentiation • Revenues from value-adding services and advertising • Complementor loyalty	Yes
	Cross-sided customer and complementor interactions	Quality of interactions • Reduced customer transaction costs Trust and reduced risk	Differentiation • Interaction-driven revenues • Innovation and product entry	No/Yes

6 Study 3: Reflections on value logics: The customer and complementor perspective

While the previous study described how value logics support the platform business model as a configuration of activities, resources, and capabilities (Amit & Zott, 2001), beliefs about such relationships may differ among the other value-creating partners of the ecosystem (Zott & Amit, 2010). Therefore, to explore whether the instruments that support value creation for the focal platform also support value creation for both customers and complementors, this study addressed the following research question: *How are value logics reflected in beliefs among customers and complementors of digital marketplace platforms?* In other words, my aim was to explore whether the proposed value logics were shared among the different participants in a platform ecosystem, although limited to customers and complementors. Not only would this respond to the previous mentioned call for research on customer value (Hänninen, 2020; McIntyre & Srinivasan, 2017; Panico & Cennamo, 2020; Yang et al., 2020) and other members of the value creation ecosystem (Aversa et al., 2021), but it would also provide a more unified view of value logics according to the business model literature's focus beyond firm boundaries, including partners, complementors, and customers (Amit & Zott, 2001; Massa et al., 2017; Zott & Amit, 2010).

6.1 Method

6.1.1 Research design

In line with previous work on managers' perceptions and understandings of customer solutions (Friend & Malshe, 2016), and investigations of perceptual differences of customer solutions between customers and suppliers (Tuli et al., 2007), I adopted a discovery-oriented, theories-in-use approach. The theories-in-use approach focuses on generating concepts, propositions, and theories by observing multiple subjects or cases in which theories are in apparent use (Glaser & Strauss, 1999; Zaltman et al., 1982). The goal of this method of theory construction is to "gradually eliminate invalid propositions and increase the number of useful valid ones" (Burr, 1973, p. 3). Thus, the theories-in-use approach represents a person's mental model of how things work in a particular context, as socially constructed maps of experienced reality

(Argyris & Schon, 1974). It has been suggested as ideally suitable to the development of theory in, e.g., marketing (Zeithaml et al., 2020), and fits well with my research agenda, namely investigating customers' and complementors' perceptions of value logics and how they align with their own mechanisms of value creation. While the method allows for both inductive and deductive logic, I mainly applied the logical deductive approach, starting with value logics and then making deductions to determine if they were true. Although data were used inductively throughout the different steps (see Figure 6), the purpose was simply to refine and adjust the proposed framework.

6.1.2 Data collection procedures

My methodological approach called for the use of informants with knowledge about the topic and the research question of interest (identify appropriate theory holders[25]). It also called for informants who could provide different perspectives on the topic of interest and were willing to share their knowledge and experiences with the researcher (Creswell & Poth, 2018; Strauss & Corbin, 1998). I therefore applied a purposive or "theoretical" sampling procedure to recruit informants with sufficient knowledge to shed light on my research questions from both the supplier and customer sides.[26] To cover the complementor perspective, in-depth interviews were conducted, whereas, for the customer perspective a set of three focus group interviews were performed. In the focus group interviews, every participant was allowed to speak freely and was given enough time to capture important nuances of each discussion point, providing a rich set of data at the individual level.

[25] A theory holder is a person or group of people who are effective practitioners in the context of concern (see Zaltman, G., LeMasters, K., & Heffring, M. (1982). *Theory Construction in Marketing: Some Thoughts on Thinking*. John Wiley & Sons.

[26] The underlying data for the study were substantially richer, with the value logics being discussed in meetings, presentations, and workshops with academics, customers, complementors, and industry experts over a five-year period. However, I only describe the data specifically collected for this study in this section.

TABLE 32

Description of informants

Pseudonym	Gender	Age (Years)	Occupation	Business/Industry
Complementor 1	Male	49	CEO	Electrical Supplies
Complementor 2	Male	23	Chief Digital Officer	Electrical Supplies
Complementor 3	Male	45	CEO	Electrical Supplies
Complementor 4	Female	41	CEO	Fashion
Complementor 5	Female	39	Chief Commercial Officer	Fashion
Complementor 6	Male	58	CEO	Autocare
Customer 1	Female	35	Secretary	Healthcare
Customer 2	Male	49	Janitor	Facility Management
Customer 3	Female	46	Lawyer	Public Management
Customer 4	Male	37	Pedagogical Leader	Childcare
Customer 5	Female	45	Nurse	Healthcare
Customer 6	Female	50	Senior Advisor	Higher Education
Customer 7	Male	45	Office Clerk	NGO
Customer 8	Female	33	Geologist	Construction
Customer 9	Female	36	Store Assistant	Retail
Customer 10	Female	33	Seller	N.D.
Customer 11	Male	47	IT Developer	Publishing
Customer 12	Female	33	Customer Advisor	Automotive
Customer 13	Female	37	Counselor	Education
Customer 14	Female	44	Author	Publishing
Customer 15	Female	47	Nurse	Healthcare
Customer 16	Male	28	Customer Service Agent	Fitness/Training
Customer 17	Female	37	Interior Designer	Interior Design
Customer 18	Female	28	Lawyer	Legal Services
Customer 19	Male	46	Customer Consultant	Plumbing
Customer 20	Male	49	Department Manager	Law Enforcement

Note: N.D. = Not disclosed.

This composition of informants allowed me to reflect on my research questions from different angles and across industries, markets, and stakeholder interests. The in-depth interviews lasted between 40 and 90 minutes each, and the focus group sessions lasted approximately 120 minutes each. All interviews were recorded, with audio equipment for the complementor interviews, and with audio and video equipment for the focus group interviews.

A semi-structured interview guide was followed for both the in-depth interviews and focus group interviews (see Appendix 6 and 7) and was adapted according to the data collection stages (see below). The goal of the interviews was to identify whether the platform companies' value creation mechanisms were also reflected by the customers and complementors, as well as whether these mechanisms were shared, providing or strengthening value creation across the ecosystem. More specifically, I designed the interview guide around themes covering the content of my suggested value logics, namely the (1) scale-, (2) complementor-, (3) scope-, and (4) interaction-driven value logics. As the customer-driven value logic was excluded as a separate logic in study 2, the customer-provided content was specifically employed to discuss the interaction-driven value logic. A set of questions were specified in advance, but were designed as guiding points to allow flexibility and room for probing techniques in discussing the themes around the different value logics. This tactic allowed informants to offer examples, anecdotes, clarifications, and other details during the course of the interviews (Friend & Malshe, 2016). The guide also allowed for flexible sequencing between each theme (value logics), permitting a natural conversation while still ensuring that the key topics were covered during the interview. All interviews were recorded and transcribed, yielding a dataset comprising 401 double-spaced pages of interview transcripts.

The data were collected in six steps (see Figure 6), with preliminary findings from each step being used to revise the interview guide before initiating the next step. In steps 1 and 2, I conducted in-depth interviews with five c-suite managers, representing complementors from four different companies in two different industries (fashion and electrical supplies and appliances). The identities of the managers were anonymized at the informants' request to avoid revealing sensitive or confidential information about their company. These informants were recruited directly after a screening process of possible informants who could fulfill the

knowledge requirements described above. I had no prior relationships to these informants. The informants in the electrical supplies industry were both producers and distributors and also represented well-known brands within their market segment in Norway and Scandinavia at large. The informants in the fashion industry represented large, widely known consumer brands (producers) across Scandinavia, with market distribution across several Northern European markets. All four companies (complementors) had market distribution through their own channels (online and offline) as well as distribution through digital platforms nationally and/or internationally.

Next, I conducted three focus group interviews (steps 3–5) consisting of customers with previous shopping experience from the five initial complementors and experience using and transacting through digital platforms (marketplaces).[27] The customers were recruited by a market research agency that ensured that the informants met the selection criteria and represented demographics and backgrounds sufficiently distinct to enable different perspectives within each group. In the first focus group interview, I included a highly experienced co-moderator who ensured that important nuances from the informants were identified and followed up through probing and discussed adjustments to the interview guide afterward to refine subsequent interviews. All focus group interviews were conducted at a market research agency in a professional venue in Oslo, Norway, to ensure a neutral environment. Finally, in step 6, one additional complementor in the autocare industry was interviewed in-depth on platform setup and capabilities, product innovation, and multihoming strategies based on the preliminary analysis.

[27] The matching of customers with complementors was done to strengthen the design of the study, and increase the credibility of the findings.

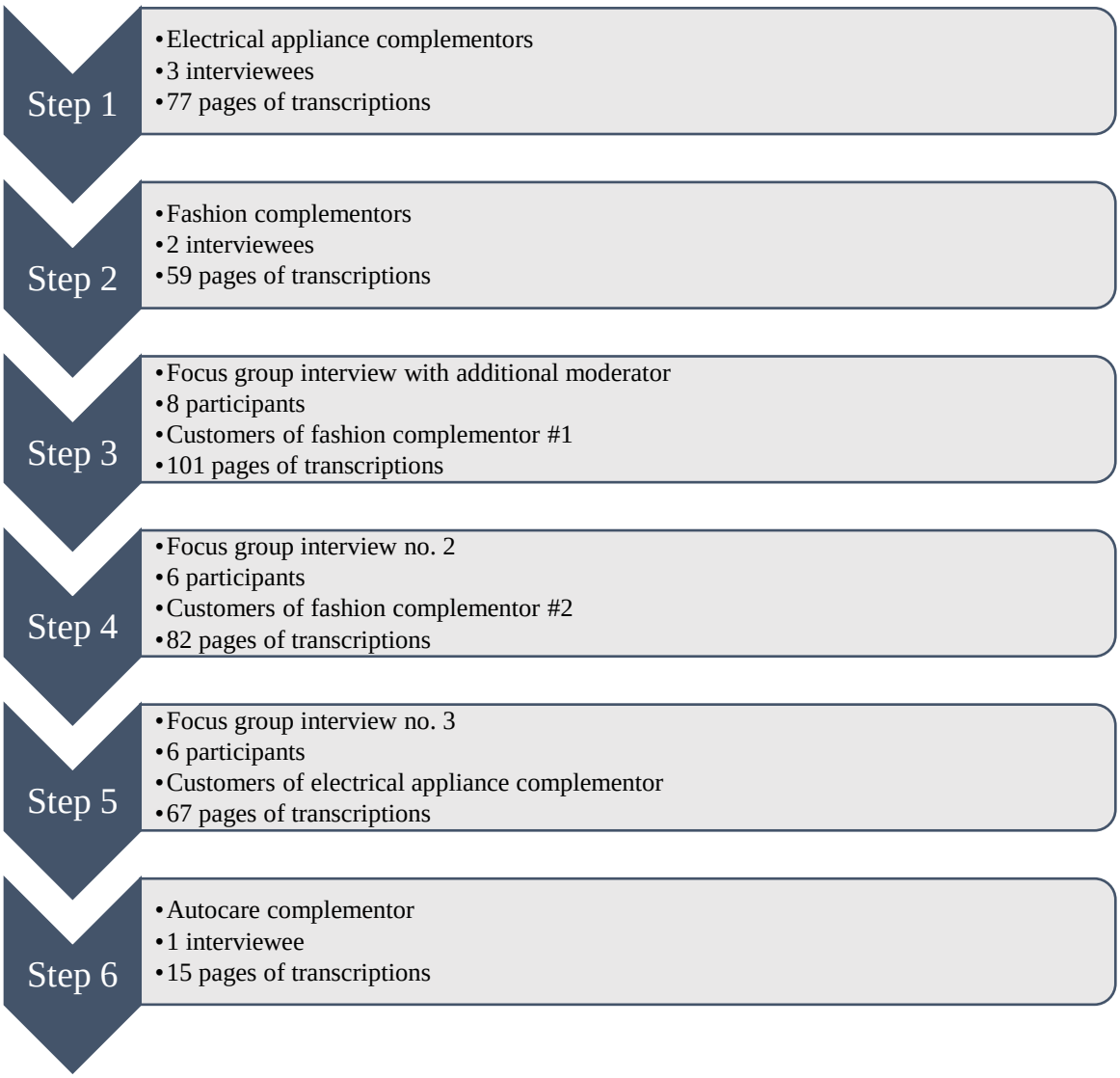


Figure 6: Overview of the data collection process.

6.1.3 Data analysis

Similar to study 2, in study 3, preliminary categories and themes were established upfront based on the revised framework of four value logics (Table 33)—but, as customers and complementors are exposed to the means of value delivery of the platform, the value delivery conceptualizations were the basis of the analysis. In other words, the categories were the four different value logics, the themes were the different sources of value creation, and the codes were the different means of value delivery, as specified in Table 23. Using Nvivo 20 software, the data were then coded and analyzed in accordance with this structure, starting with matching

informant expressions to the codes, and then assigning the codes to the different themes and categories.

In line with the theories-in-use approach, the data were preliminarily analyzed in an iterative process at every step in the data collection process (Saldaña, 2020; Strauss & Corbin, 1998). This allowed emerging themes or codes to be explored in subsequent interviews by adjusting the interview guide. From this process, a set of codes emerged from the findings that were not previously identified in the value conceptualizations: "complementor efficiency," "brand environment," "discovery and complementarity," and the role of "identification" through one-sided customer interactions. Also, "data integration" emerged from the early analysis as a separate code but was later merged with "ease of use and accessibility," as this is the related outcome (value delivery) of data integration.

As a result of the analysis, some changes were made to the existing code structure. The code "excess capacity" was merged into value-adding services as part of customer orientation and relationship management. As with "data integration," this value conceptualization is associated with the platform company's utilization of resources, not a value delivery element to which customers or complementors directly relate. In return, both customers and complementors focus on the core functionality of the platform, and the related outcomes (value delivery). Therefore, "core functionality" was introduced as a separate theme within the scope-driven value logics, with "compare options," "discovery and complementarity" (as described above), "convenience," and "payment" as codes. Finally, several minor changes were made during the analysis: "convenience," formerly included in complementor network size, was merged into scope-driven value logics of "convenience," "search costs" of complementor network size was merged into "product variety," and "reduced customer transaction costs" in the cross-sided interaction logic was merged into "quality of interactions." From the four value logics, nine different themes were identified, and a total of 22 codes and 13 subcodes were applied. Table 33 provides an overview of the codes, themes, and categories, as well as whether the code was derived from the existing theoretical framework, revised (as specified above with the changes in the structure), or emerged from the findings.

TABLE 33

Categories, themes, and codes from the complementors' and customers' perspective

Category	Theme	Code	Origin of code
Scale-driven value logic	Size and reach of network	Matching supply and demand	Theory
		Reduced search costs	Theory
		Access to markets for complementors	Theory
	Economies of scale	Low price	Theory
		Customer efficiency	Theory
		Complementor efficiency	Findings
		Market power	Theory
		Matching at scale with data	Theory
Complementor-driven value logic	Complementor network size	Competition and lower price	Theory
		Product variety	Theory/Revised
	Complementor innovation	Product information quality	Theory
		Product quality	Theory
Scope-driven value logic	Capabilities	Data analytics and insight	Theory
		– personalization and customization	Theory
		Customer orientation and relationship management	Theory
		– customer experience	Theory
		– empowerment	Theory
		– value-adding services	Theory/Revised
		– brand environment	Findings
	Core functionality	Compare options	Theory
		Discovery and complementarity	Findings
		Convenience	Theory/Revised
		– ease of use and accessibility	Theory/Revised
		– delivery	Theory
		– entertainment and relaxation	Theory
		– payment	Theory
		Trust	Theory
Interaction-driven value logic	Cross-sided customer/complementor interactions	Quality of interactions	Theory/Revised
		– increased trust and reduced risk	Theory
	One-sided complementor interactions	Quality of interactions	Theory
		– improved matching/complementor efficiency	Theory
		– trust in platforms	Theory
	One-sided customer interactions	Quality of interactions	Theory
		– reduced customer transactions and search costs	Theory
		Identification	Findings

6.2 Findings

6.2.1 Scale-driven value logic

The scale-driven value logic builds on the assumption that the value of the platform increases with the scale of the company and the size of the network. From the customers' and complementors' view, the value from scale is primarily reflected in two themes, with one theme comprising the value from the size and reach of the network, and the other comprising the value from economies of scale of operations.

6.2.1.1 SIZE AND REACH OF NETWORK

From the buyers' perspective, the customers do not differentiate between a platform and a large online retailer in terms of who is providing the products. Customers are concerned with the range of offerings or available options but do not reflect on the difference between "size" in general terms and "size of the network" as I define it in my value logics. Even when asked specifically about this issue, customers still considered the platform provider as the transaction partner, putting less emphasis on the individual complementors. However, when customers put themselves in a complementor position—for example, when acting as sellers in second-hand trade—they focused their attention on the large platforms rather than individual smaller sites due to their reach.

Similarly, from a suppliers' point of view, complementors are not necessarily attracted to the platforms due to their size in general but rather how the platform fits as a channel in their distribution strategy. The suppliers consider the platform's composition of products and profile, as well as the profile of their customer audience in a rational perspective on how to include platforms in a distribution strategy to utilize the value of reach:

> *Complementor #1: "What's most important is to reach the customers where they are. That is why we sell to traditional online retail, marketplaces or platforms, physical retail, or sell through our own online store. We are really selling across all channels, and we do not favor one channel over another. We have to be where the customers are. And that is why we are everywhere."*

Although size matters when it comes to reaching a potential customer group, the statement above illustrates that complementors think strategically when selecting platforms for distribution, and they emphasize the importance of gaining *access to markets,* increasing their likelihood of reaching potential customers. This was equally emphasized by Complementor #5:

> *Complementor #5: "We pay attention to every online retail report across Europe every quarter, and when almost every customer has shopped at a platform like Zalando in Germany last year, it is of course difficult to say no to this, to say we're not getting into this business."*

A common denominator for both customers and complementors was how size and reach enable *matching of supply and demand,* which serves as the primary benefit and means of value delivery. For customers, matching was about the chance of finding the product they needed, one which met their requirements in terms of both price and quality. Customers also related matching to having a product or an option in stock. Unless the product they needed was available for purchase, matching did not occur in their view. For complementors, matching was about finding customers who wanted their products or services in an efficient way.

> *Complementor #1: "Our first experience with a marketplace platform was with Komplett Marketplace.*[28] *We were among the first to join this marketplace, and from our experience, it worked well, we were extremely excited. We had high sales and thought this was a genius way of working. But then, suddenly, the marketplace shut down and returned to a model of old-school online retail. But by then we had seen how the platform market worked and noticed that the main retailer in our home market had launched a marketplace as well. We had a previous relationship with them in traditional retail, so we asked to join their marketplace instead of selling to them directly (..) some might look at this as a step backwards, but we saw this as a step forward, and our cooperation with this retailer has worked much better after entering their marketplace than the previous agreement of wholesale."*

[28] Komplett Marketplace is one of the cases in study 2 in this thesis.

Platforms therefore became a natural step for market expansion and enabled the discovery of their brand. Even if complementors focused on a direct-to-consumer model in their home markets and utilized platforms for expansion in foreign markets, they still acknowledged the importance of being customer-centric and adapting their distribution strategy accordingly.

> *Complementor #5: "Our approach to marketplaces like Zalando or Amazon is that it should be up to the customer to decide. But, of course, our first choice is to sell through our own channels—direct to customer is definitely what we do, but, at the same time, when you put yourself in a customer-centric mode, you have to acknowledge that there may be some customers who ultimately only want to shop at marketplaces."*

However, as one complementor said, such a broad distribution strategy is a challenge when selling well-known or popular brands. This is because popular brands often come with low margins, and distribution is costly. But still, a strategy of broad distribution is helpful in creating curiosity and awareness of the brand, and some complementors therefore viewed platforms more as a recruitment channel for new customers than a new channel driving sales. Complementors sought insights into the market they were entering, as well as insights into competing brands and their activities, and played with a selection of their own product portfolio, testing, balancing, and adapting their offerings to the platform's existing inventory.

6.2.1.2 ECONOMIES OF SCALE OF OPERATIONS

Upon the basis of scale, customers referred to the value delivery of *low price*, which was referred to as the primary driver of choice compared to the alternatives and how they recognized the source of price value originating in a scale-driven value logic based on scale and price competition (see Table 34).

Complementors, on the other hand, did not equally reflect the value of low price as a benefit as it reduced their margins, and they were concerned with how platforms might execute their market power through pricing strategies, consequently reducing their profits. For that reason,

complementors were hesitant to supply the platform with products on a wholesale model.[29] Especially for premium brands, the fear of being discounted was so high that complementors would have rather stayed in a marketplace model than sell their product to the platform through a wholesale model.

> *Complementor #5: We would only enter a marketplace model, not wholesale, to ensure ownership and control of our products. I know there are smaller brands that struggle to get approval by the platform on this issue, and then you might end up in a very difficult competitive situation. We won't put ourselves in that kind of situation."*

While efficiencies have conceptually been defined as a value capture mechanism for the platform provider, it became clear that both customers and complementors considered their own efficiencies of platform participation. For customers, this efficiency was reflected through the value of using platforms that cover all their needs in one place. Customers saved time, as they did not have to visit several websites to find what they were looking for, much like a traditional shopping mall, but the importance in this logic is the scale of the efficiency that the platform provides. It also increases efficiency in fulfilling the transaction itself, as customers did not encounter any sold-out situations, as they might experience in physical retail.

> *Customer #5: "This variety—you know, a platform has an enormous variety of options. If you were to go through all those stores physically, right, it would have taken a lot of time and energy."*

As with customer efficiency, *complementor efficiency* also emerged as a key topic during discussions. Similar to the the previous section, where size in general was not the most important attribute of a platform for complementors, it was not a goal to enter as many platforms as possible. This was elaborated by Complementor #5 who considered the resources needed to onboard a platform:

[29] The wholesale model is a distribution model whereby wholesalers sell their products in bulk to a retailer at a discounted price. The retailer then sells the products to end customers at a higher price. The interviewees did not differentiate between a wholesaler and a producer/brand in terms of supplying products to the platform provider.

> *Complementor #5: "There is already a large selection of marketplaces, but it is also a consideration of how many you choose to enter. It also demands internal resources, so we believe in simplifying our work processes and working smart, perhaps choosing a selected few that are operating in several markets rather than having many different partners (platforms)."*

Even though the platforms seemed large and impressive from the outside, complementors nonetheless performed a considerable amount of manual work associated with simple tasks, such as listing a product. Here, they often needed to manually update spreadsheets rather than using integrated solutions. Combined with a lack of standardization of data and procedures across platforms, complementors therefore made concerted efforts to adapt their information to every individual platform. Still, the platform model was considered beneficial when compared to traditional retail:

> *Complementor #1: "Our own online store has, by far, the highest margin. However, the platforms are still providing a good margin if you compare them with physical retail distribution. So, you cannot just look at the revenues, you have to investigate the margins, and they are substantially higher in the platform distribution model. And platforms are easy to manage compared to traditional retail distribution."*

Further, in discussing economies of scale, the issue of *market power* was also highlighted among complementors. Complementors were concerned that the platform provider captures a disproportionate share of value due to their market power by, for example, prioritizing their own inventory and entering the complementors' profitable market segments or prioritizing selected complementors that are more profitable to the platform.

> *Complementor #2: "A search query might yield a result of thousands of articles or options, and what alternative should you choose? And can you trust the platforms' preferred option as the right one? Is it what's right for the customer, or the one where the platform profits the most?"*

The algorithms were perceived as complex and difficult to understand, and complementors spent a lot of time and resources understanding and learning the algorithms to improve their performance. As one complementor put it:

> *Complementor #5: "You cannot just upload a lot of products and think you will sell those. In theory, the products are lost until you realize how to make them visible."*

There was also a concern that the platform exploited the knowledge of the complementors and their offerings to signal breadth or depth within a product category, but then pursued the customer to purchase their own brand or offerings. As they saw it, this was easily controlled through higher search rankings, and through signaling with tags and color schemes, and even if the platforms claimed they always put the customer first, complementors realized that this may not always be the case and questioned the fairness of the algorithms.

TABLE 34
Key quotes: Scale-driven value logics

	Customer	**Complementor**
Size and reach of network	"The variety—I mean, a platform has a huge variety" (Customer #5). "You know, there is practically nothing that's not there, you find everything in one place" (Customer #1). "It becomes the shopping mall in your pocket, or on your mobile, you don't have to run across several stores, and you can check out, pay, and have the products delivered at your convenience" (Customer #7).	"It's not that important that they (platforms) are large, rather the opposite. I would rather have the "right" channel, where the composition of products strengthens each other and feels like a natural environment for us. There is little value for us to join a large platform and become invisible" (Complementor #4).
Economies of scale	"Obviously, the more products, the more prices are going down. It's competition. And definitely, this is very advantageous for us as buyers" (Customer #19).	"To us, this is a very clear strategy. We would never enter a platform if it could discount our products. That's not appropriate for a brand like ours. We're done with discounts. We rarely have discounts ourselves, and that's critical to us" (Complementor #5). "It's not a goal in itself to participate in every available platform because we consider the platform distribution model as a costly model, almost as costly as setting up a new store—not in terms of investments, but in terms of the margins it provides" (Complementor #3).

6.2.2 Complementor-driven value logic

The complementor-driven value logic builds on the assumption that the source of value originates from complementors that provide the content (products and services) to the platform and includes how the size of the complementor network increases product variety but also how the quality of products and services increases due to complementors' innovativeness.

6.2.2.1 COMPLEMENTOR NETWORK SIZE

As described in the findings in the scale-driven value logic above, customers had a hard time differentiating between size in general and size due to the network of complementors. The complementor-driven value logic was therefore not clearly reflected from the customers' point of view, as they did not identify complementors as a source of value to the same degree as the platform companies did. From the discussions, customers did not seem to care about whether the product was supplied by the platform itself or by a complementor, but nevertheless benefited from a *lower price* due to the increased *competition* between complementors (and/or the platform) on the platform.

Customers therefore benefited from network size via the *product variety* offered by the platforms, although they did not recognize the complementors. There was literally nothing customers could not find, and they found all they needed in one place across product or price categories, including niche products or products from small enterprises, and different varieties of the same product (e.g., sizes, colors).

> *Customer #19: "That's why it's important to have a large variety. It would have been boring if the issue was fashion, and there were only four different jackets (in the world). And everyone was wearing those four jackets. So, a large variety is important in some categories, but not in all."*

When asked whether more was better, the customers mentioned the overwhelming factor of having too many product offerings, making it hard to navigate and get an overview, and finding exactly what they were looking for. They sometimes forgot what they were originally looking for, or they were exposed to so much content (many options) that they simply exited the platform and visited a specific store instead.

> *Customer #5: "Regardless of how much I'm filtrating, there is still page 1 of 67, with the filters, and then you just give up and surrender."*

Not only was there a large variety, there was also increased similarity between the different options, which made it difficult for the customers to orient themselves.

> *Customer #1: "It's about more similar ones, in such a way that I don't see the differences anymore. It's just like tasting a cheese at a cheese festival. In the end, you have no idea which one was the best. And it's the same browsing for living room tables, where there's 200 different ones, and I can't tell the difference, or having 50 different trousers that are almost identical, besides one having a zipper on the left side, and the other one having it on the right. Then I get insecure once again."*

Therefore, the value of variety is not necessarily about having as many options as possible, but instead offering a relevant selection of options for comparison, thereby reducing the *search costs* for the customer.

Complementors also experienced increased competition, not as a benefit but a disadvantage, with network size having a negative impact on their ability to capture value, due to competition between complementors as well as competition with the platform itself entering complementors' space.

> *Complementor #2: "We try to keep up the quality, and you get what you pay for, right, while many of the other suppliers or complementors may have cheaper products that customers are easily attracted to."*

Another challenge was that increased competition often resulted in reduced margins for the entire value chain, not just for the complementor, as there was not necessarily an ever-increasing market but rather fierce competition over the same customers. Therefore, complementors made conscious decisions about which platforms to engage with to benefit from a reciprocal relationship with the platform provider. They tested and experimented with their product offerings and adapted to the platform's portfolio to mitigate competition by providing a limited selection from their product portfolio or categories.

While the benefits of variety were mostly reflected among the customers, there were signs of advantages for complementors as well, related to how competition may increase category awareness and the role of product variety in building a market. In this way, greater variety equals increased opportunities and access to markets as described in the scale-driven logic.

6.2.2.2 COMPLEMENTOR INNOVATION OUTCOMES

Complementors not only acknowledged the opportunities that a platform represents to them, but also reflected on the interdependent relationship they had with the platform and their importance to the platform in providing content (products) of *high quality*.

> *Complementor #1: "There are some prerequisites here. It is a prerequisite that we are actually better than those providing the platform. I consider our people to be good and having the best intentions. And this means that we do a good job, and a better job than those with the platform. But of course, there are complementors out there that don't do a good job. So, if you have good complementors, then a platform is a good solution, but if you have bad complementors, you're better off doing it yourself."*

Complementors both improved the quality of their products based on customer feedback and adapted their product offerings to the market of the platform. For example, one of the complementors explained that it was more targeted at the preferences of Nordic customers, while the larger brands had a more general focus on the needs of European customers overall.

What also mattered to complementors was control of their brand, how it was represented, and the *quality of the product information* provided by the platform. For example, Amazon is exemplified as a price/product platform, one that is not very focused on the customer audience and audience value, where storytelling is more or less absent, and with a clear focus on product and price. Zalando, on the other hand, is exemplified as a different platform that is much more focused on brand experience and visual quality and through which complementors perceive a great deal of control.

> *Complementor #5: "If we make gym accessories, and push out such products for sale, that's a completely different approach. But we're selling a story, we're really not selling products. We're selling an experience, an insurance that your children are dry and*

> *warm while you're at work. You know, that's what we sell. So, it depends on what kind of product you offer. I think someone might be successful there, but…"*

In other words, Complementor #5 acknowledged that Amazon may work well for many categories (e.g., gym accessories), but that they themselves targeted platforms with customer experience closer to their own brand identity and style of communication. Nevertheless, in both cases, the complementors had slightly more control of their offering than in a traditional wholesale model. Even with regulations concerning the textual content and visual presentation of products, complementors were allowed to have different product information and prices on every platform.

As a result, complementors therefore argued that performance in terms of sales could improve in a platform model compared to a traditional wholesale model. This is because their product expertise and knowledge about pricing and communication were much greater than the (large) retailers could ever achieve.

> *Complementor #1: "At one point in time, we simply have to make the decision to leave physical retail on its own and go all in on platforms. Retailers are still welcome to purchase from us, but on the same terms as the platforms, which are substantially lower than today. It is more expensive to have a physical retail distributor, as they need more follow-up, and they ask for higher discounts. And we have no control over the information they provide to the end customer, no control over the services they provide, and no control over how they handle warranty issues."*

Similar to the finding that customers had a hard time differentiating between size in general and size due to complementor network size, customers did not reflect the value of complementors in increasing the quality or innovativeness of the products or services offered. Rather, they pointed to product variety and the opportunity to choose between different qualities of products offered and the price they were willing to pay, without considering who was providing the content.

> *Customer #11: "If you're at Aliexpress and browse for screwdrivers, you find everything from 10 cents for a hundred, to 10 dollars for one."*

However, quality is difficult to assess digitally, and customers often purchase different versions of the same product, hoping one of them is of sufficient quality, or they simply refrain from making purchases in categories where product quality is essential.

> *Customer #2: "If you're buying a computer, you get a bit skeptical if they also sell yard brooms and everything else. I'll withdraw from that (transaction), thinking I should buy from someone specialized in computers."*

The exception is in purchases of well-known brands, where the product quality is known in advance. Here, complementors are welcomed in making foreign quality brands available to customers.

> *Customer #12: "I have lived in England, and love some of the stores that are only present there, like Dorothy, New Look, and Marks & Spencer. They're all known for good quality. And you can get all those items (on the platforms). So, knowing these (brands) from living in England, I visit them (on the platform) to see what they offer. So yes, I'm definitively taken by quality."*

Simply because the market is not big enough in small countries, even products from well-known brands may not be available through traditional retail channels. But with the global scale that a platform can potentially achieve, the market is large enough for small quality brands or niche products as well.

TABLE 35
Key quotes: Complementor-driven value logics

	Customer	**Complementor**
Complementor network size	"I've just thought there are different brands there, not that there are different sellers" (Customer #14). "I don't have to go several places; I find all in one place" (Customer #3). "To me, this is about finding an item that is tailored for you. Not everyone is the same, and it's important that you find the one that encompasses the characteristics you are looking for" (Customer #19).	"It is of course negative in the sense that the customers have several options to choose from, and our products are maybe priced somewhat higher than others" (Complementor #2). "It might represent an advantage if this (variety) attracts the type of customers you're looking for yourselves. In that way, it might not be so negative. This is similar to how we construct our physical stores. There, we want to be located next to the competitors, so there may very well be an advantage in that" (Complementor #3).
Complementor innovation outcomes	"Another benefit of variety is several price categories—with different qualities" (Customer #8).	"If the platforms are to make a good impression on the customer, then they are dependent on the partners they have, that they provide good content. If the partners don't provide great content, then the platform suffers" (Complementor #1).

6.2.3 Scope-driven value logic

The scope-driven value logic, which relies on resources and capabilities controlled by the platform firm as the source of value, was reflected among customers and complementors in two different themes: capabilities and core functionalities.

6.2.3.1 CAPABILITIES

While the platform's use of *data analytics* and algorithmic optimization is discussed above, the scope-based perspective addresses whether the platform converts data into *insights* that it shared with complementors, enabling them to increase their value creation through product and service optimizations, thereby extending the value of data from a general matching improvement to a more dynamic and tailor-made approach. Examples from the interviews include the automated sharing of insights through the platform's user interface but also the sharing of insights on a more *ad hoc* basis, indicating a more manual process, one relying on a close relationship between the platform and its complementors.

> *Complementor #1: "We do receive specific recommendations. For example, the platform may say: 'Currently, it is a hot summer in Finland, and air conditioning products are sold out, so if you have any air conditioning products to offer to Finland, within this price range, then it's a market that no one else is covering'."*

Another example of how data sharing creates value for complementors is through recommendations for future inventory supply whereby the platform's data indicate future inventory and market demand that the complementor can utilize in purchasing or ahead of supplying seasonal product collections. This kind of insight is also often shared in the setup phase of onboarding complementors on a platform, where they receive inputs concerning product categories, product selection, and pricing. However, once the complementors are live on the platform, they often feel left on their own for further optimizations, receiving limited insights besides retrieving their own sales data. It is then up to the complementors to utilize the available information, which requires them to have the necessary capabilities or make the necessary time and investments to utilize the platform's potential.

> *Complementor #5: "I would say the insights we get from the platform (Zalando) are very good because the platform itself is very good. The app is good. You can get a*

> *conversion rate per product, and quite a lot of information (..) but of course, there are many brands there, so it's hard to stand out in the crowd, you are easily lost (..) you have to invest internal resources, and maybe make some changes, but the insight is there."*

From the customer's point of view, a typical example of how data is operationalized is through *personalization and customization*, which potentially improve matching and increase relevance by offering a more personalized user experience and product recommendations. The findings, however, demonstrate that product recommendations are, to a varying degree, perceived to be valuable by customers. In fashion categories, recommendations typically imply items to complete "the look" or the outfit; while in electronics, recommendations typically involve accessories or products complementary to the purchased item. Customers perceived a higher relevance from recommendations if the complementary products recommended had a "clear cut" extension of the primary product, like wardrobe and wardrobe accessories, a computer and keyboard, a display, or a mouse than a more peripheral extension, like a mobile phone and a Bluetooth speaker.

The customers particularly perceived recommendations as valuable in the search phase of the customer journey and were more positive about recommendations made online compared to physical retail, and they even asked for more targeting and for high frequency and repetitive messages, especially in newsletters. However, due to the rather low shopping frequency on platforms, customers sometimes experienced strange and fragmented combinations of products being recommended, not typically representative for a shopping basket. Still, while proving valuable in the search phase, problems also arose if the recommendations interfered with the final purchase process. Having recommendations at the final stage were perceived as clutter and distracted the customers from their goal of finalizing a purchase, causing irritation and annoying the customers unnecessarily.

> *Customer #15: "I appreciate recommendations as I browse through and compare my options, and I might even add the suggested item to the basket. But when I go to the checkout, then I would just like to pay and finalize my transaction without further distractions. Along the journey, that's fine, but when I have made a decision, I've made it. It's final."*

This was equally reflected by the complementors, who cared about how customers are guided in their customer journey but also how data enable complementors to increase awareness of their brand, improve their search results, rankings, and matches, and differentiate their content to increase optimization. This latter issue was raised by several complementors, who still felt they were at the mercy of platform algorithms when seeking to gain visibility among a large selection of complementors and offerings. As one complementor emphasized, personalization is strongly believed to create close relationships with customers, but platform companies should take a stronger position and assist complementors in achieving this goal through improved *relationship management.*

> *Complementor #2: "It's a win-win situation. It's in the interest of the platform to make complementors successful in terms of sales."*

This leads us to a broader focus on the capabilities necessary to improve the *customer experience,* the issue of *platform governance,* and also customer *empowerment*. For example, customers emphasized ease of use, a fast transaction process, and an efficient handling return procedure, and they had high expectations regarding responses to their inquiries. Customers also felt empowered by, for example, becoming complementors themselves (e.g., on a C2C platform like FINN), contributing to sustainability through secondhand trade and prolonging the lifetime of products. Complementors, however, claimed that platforms prioritize customers and take "their side," especially regarding support issues, demanding a solution within a short timeframe to keep customers happy. However, this was not a unified view as it seemed to differ across different platforms, with larger platforms like Zalando and Amazon having come further along in terms of platform regulation and governance than smaller or less mature platforms.

> *Complementor #1: "Komplett didn't set any requirements on response time, order fulfillment, distribution, and so on. And when they onboarded many complementors with minimal experience with e-commerce, the difference in user experience became tremendous. Customers were used to an optimized customer journey with fast, flawless delivery, and that was no longer the case."*

Further, in discussing the value of customer experience, the issue of loyalty programs,[30] which can make customers choose one vendor over another, was also mentioned. Because customers directed their choices based on such benefits, this made "everyone" launch a loyalty club. The customers ended up being members in all these programs, resulting in minimal differentiation and reduced effect of the programs.

> *Customer #12: "They want you to be loyal to their store or platform, but really, I don't want to be loyal to anyone. I shop everywhere, and I'm a member in all of these (loyalty programs)."*

The only loyalty program that was differentiated from the competition was Amazon Prime, which includes additional benefits such as streaming services and one-day deliveries that, even with a small fee, are perceived to be of higher value, and increase customer loyalty.

> *Customer #16: "I think free delivery applies to a selection, not every item at Amazon. But still, that's a lot. And you get additional services like movie streaming. It's basically Netflix, only a budget version of it. And in gaming, which I do, you get lots of benefits in games, and so on."*

The complementors, however, did not derive any value from the platforms' loyalty programs but only benefited from the customer base in *ad hoc* marketing (promotion) campaigns, often focusing on price deals. Still, they relied on the *excess capacity* of platforms in marketing services to increase their visibility, especially in categories marked by intense competition. While some complementors saw this more as a necessity than a value, considering it a pure marketing cost, others realized the potential these services offered.

> *Complementor #4: "Our next step is to launch a brand store on the platform; several others have that today. Then you will get increased visibility on the platform's different channels, you will get priority on the website, and you will get to be a part of their marketing communication. So, you'll not only achieve increased visibility through the*

[30] Loyalty programs include a range of benefits, such as prioritized order fulfilment, an extended warranty, extended returns, cash points, cashback, discounts, special offers, or give aways/free products triggered at threshold levels.

> *platform but you will also get to be part of their marketing plan, which I think is very valuable."*

Finally, in discussing the scoped capabilities of customer orientation and relationship management, customers and complementors also included the issue of *brand environment*. Similar to the finding that complementors were not that concerned with the size of the platform, they were neither concerned with market awareness nor knowledge of the platform brand *per se*, so long as the platform complied with the complementors' requirement for handling their business seriously. Neither did they pay particular attention to other complementors, nor what they did or the origin and quality of the customer profiles (e.g., the country of customer residence) on the platform. Rather, they focused their time and energy on their own actions, as well as whether the platform's brand environment resonated with their own brand associations in an overall assessment.

> *Complementor #5: "To us, the brand environment is very important. Because if there is a strong focus on price and discounts, we don't want to be there. We would rather be seen as sustainable, with quality products. We fight for the environment every day, so we are very careful about who we connect with to avoid negative associations about our brand."*

This finding was particularly evident for the premium-brand complementors, which viewed the platform as a vehicle in terms of brand representation but, as discussed about "size" above, the brand environment and the composition of products were more important than size itself.

6.2.3.2 CORE FUNCTIONALITY

Compare options

As a result of size, one of the key benefits of a platform's core functionality is the ability to *compare options.* Customers get an overview of prices, which makes it easy to compare price offers (and monitor prices over time) and obtain an overview of product options that may cover the customers' need.

> *Customer #20: "It is easier to compare the different options, especially when you're not exactly sure what you are looking for. Then, just by looking at the pictures, it is easier to identify which options are relevant and which are not."*

Functionality, such as filtering or comparison via pictures, therefore helped customers narrow their search results and assist in their purchase decisions. Still, the customers experienced varying degrees of performance concerning such functions, with only some platforms having logical filters that were perceived to be helpful. Out of fear of missing out on good options, they then typically ended up scrolling and browsing through an endless list of results to gain a sufficient level of confidence before deciding on their option.

The complementors perceived product comparison as a double-edged sword. As in the discussion on the fairness of algorithms above, the complementors asked whether the results were appropriate for the customers or were instead the most profitable to the platform. Additionally, they provided examples in which platforms gave priority to their own brands over those of their complementors. Complementors claimed that platform owners prioritized their own brands (private labels) in search results as well as displaying tags and visual elements to communicate a good deal.

> *Complementor #1: "They provide such elements for their own brands, but not for our brands. In my opinion, you should always do what's best for the customer. But in my experience, that's not the way they (the platforms) operate. They do what's best for them. It may create sales in the short term, but I don't believe that's a good strategy for building trust in the long term."*

On the other side, though, product comparison was seen as a great opportunity to gain visibility and reach new customers, in line with the scale-based logic described earlier. Therefore, complementors invested time and resources in promoting their own brand at earlier stages in the customer journey outside the platform scope to increase awareness of and interest in it. They also worked tirelessly with product information and customer service, invested in the platform's marketing activities, and utilized information from the platform's competing offers to identify correct price levels before listing an item for sale.

Discovery and complementarity

A second dimension following the core functionality of a platform is the value of *discovery and complementarity*. Here, customers stated that the value of discovering something new or exciting has led to purchases and that impulsive buying is stronger on a platform compared to a traditional shopping mall.

> *Customer #1: "Maybe it's because it's a bit exciting as well. It's almost like entering this [famous department store] blindly, and, sort of impulsively, because you can come across almost everything on these platforms."*

A platform allows one to find anything, anywhere. Therefore, customers discovered new kinds of products they did not even know existed, or products that tapped into latent needs. Combined with an attractive price deal, impulsiveness was then often triggered.

The second element of discovery is the *complementarity* of products offered on a platform. Here, the platforms were perceived as valuable to customers in providing relevant suggestions for complementary products in a user-friendly way, one that drove purchases more than what they experienced in physical retail.

> *Customer #16: "And then there's when you are in a store, like, if you buy a garden hose, you don't think about accessories, you just grab the hose and leave. But on the platform, it's like, there's this nice layout on the side, with additional accessories you can buy that fit the hose. I like that, and I put it (the accessory) in the basket".*

Complementors, based on the opportunity to reach new customers, should also benefit from the functionality of discovery. However, complementors did not equally see the value of complementarity because they did not get insights into customers' shopping baskets and were unable to identify sales that originated from this functionality.

> *Complementor #3: "We don't get any insights from the shopping baskets. At least the setups we currently have provide very little insight into what we're part of. Of course, we know the items we sell ourselves, but that's it. So, if we'd known that all customers buying a Christmas tree also added Christmas tree lightning, but from someone else than us, that would've been interesting to know. Or if we only got 10% of the sales, why*

> *is that? (…) so, my feeling is that partners on platforms today must do the job themselves, in any other way."*

This left the complementors to experiment with their own product offerings, to address possible product combinations and category extensions, and to tap into the opportunities of complementarity.

Convenience

The third dimension following the core functionality of a platform relates to the *convenience* of using the platform, including the *ease of use and accessibility* of the platform, the *delivery* of products (transaction fulfillment), and the issue of *entertainment and relaxation.*

To customers, ease of use and accessibility lowered the search costs and reduced the friction of making a purchase. They valued accessibility from any device (such as a smartphone or a computer), at any time (24/7), with little effort (e.g., pre-registered credit cards/one-click shopping, registered address), reaching a desired outcome (e.g., finding the relevant product and shipping option) in an easy and simple way, at a preferable cost.

However, to complementors, ease of use and accessibility were also associated with technical integration solutions, reducing the need for manual time-consuming operations, and reducing errors in manual operations.

> *Complementor #5: "The reason why we are pausing our platform initiative right now is because we are replacing our entire ERP system and all digital IT platforms to enable a new API and direct integration with the platforms (…) our target is zero manual processing, where everything is automated."*

Such integration solutions were particularly important in a multihoming strategy, through which complementors distribute content to multiple platforms, with adaptations intended to optimize the platform's different characteristics. Without a closely integrated solution, overlooking and ensuring correct product information is a challenging task.

> *Complementor #4: "They (platforms) create a lot of value in their current form but, at the same time, it would have been beneficial to connect our main warehouse with the platform rather than the distributed units. All logistics would have been much smoother,*

> *but it was a fast track to get started. Almost copy/pasting existing data integration compared to a complete setup from scratch. But the current model is somewhat cumbersome. I mean, today, even updating the price on the platform is a manual update by the platform. We update an Excel document on our side and pass it on to the platform, which makes the changes. So, we're awaiting full integration. But it is quite complex, and none of the platforms are adapted to our country's regulations. Particularly when it comes to pricing, there are strict regulations. Complying with these regulations on a platform requires a considerable amount of adaptation. So, this is a huge challenge for platforms that we need to solve."*

Therefore, even though the complementors reflected the value of accessibility, made the necessary adjustments and investments, and were ready to supply their entire product collection, they were held back by the platforms' limited capacity in handling integrations.

Delivery was also highlighted among customers and complementors in their assessment of convenience as being extremely important. As Complementor #3 stated:

> *Complementor #3: "The right price, the product in stock, and fast delivery. Those are the three most important components."*

This was also reflected in the customer interviews, in which the convenience of shopping on platforms was viewed as changing the typical shopping pattern because of the ultra-convenience they provide in the form of same-day deliveries, often for free.

> *Customer #5: "You know, I have the pharmacy in the same building as my workplace, and another one within two minutes walking distance from home. Still, I go online. Because it's cheaper, and more convenient."*

With deliveries also come returns, and with up to 100 days of free return, customers often ordered multiple instances of the same product (e.g., different options, like clothing sizes) with the purpose of keeping the one that best matched their preferences and returning the others. They also valued different delivery options, such as home delivery, store or kiosk pickups, curbside pick-ups, and 24/7 delivery boxes, and they often added extra items to ensure free shipping.

Complementors therefore allocated significant resources to building and optimizing their logistics operations, utilizing platforms for the shortest delivery time, especially in foreign markets.

> *Complementor #5: "The last mile has become the most important to our customers, who would like a delivery within 24 hours. So, we have a main warehouse and distribution facility in Sweden. It is highly modern, with robots working during the night, so it's pretty fast. But when you're supposed to send items to France and Spain, we can't make this 24-hour timeframe. So it's important to have a partner who can take care of this. On the other hand, we also consider having our own fulfillment, even with platform sales. So, we consider this in some markets, but it's too early to tell pros versus cons."*

Still, challenges were experienced regarding inventory costs when complementors held inventory on many different platforms and optimizing inventory across locations. Platforms that handled shipments for direct sales were especially important to complementors.

> *Complementor #3: "We have tried out different marketplaces as more like a marketing channel, and our understanding is that marketplaces without inventory do not bring the best user experience. So, if you purchase a headset and an electrical component, you will receive two different shipments, from different locations, and two different tracking notices. They do not arrive at the same time, which is not ideal. The customers do not always notice that the item is sold by a complementor, which causes some difficulties. But I mean, it could still work quite well, which is obvious if you look at Amazon, but I think you need to invest quite a lot as a complementor to be successful."*

This was also emphasized by Complementor #1, who believed that they should either keep all inventory on hand, and do all the shipment themselves, or move their entire inventory to a platform's warehouse and let the platform handle all shipments, including their own direct sales.

> *Complementor #1: "In my opinion, there are two scenarios that are realistic: Either we keep all inventory ourselves and handle the shipments to every platform or retailer, or, alternatively, we place all our inventory on one marketplace or platform, and then let this marketplace handle the shipments to every customer, including customers on our*

> *own website and competing platforms. That's the two realistic alternatives. Having inventory on every platform is just too much."*

Another dimension of convenience is the more abstract subject of *entertainment and relaxation*. Even though marketplace platforms are transactional in nature, non-transactional dimensions like entertainment and relaxation can also prove valuable to customers as important functionalities of a platform. Customers typically referred to these dimensions as relaxation, flight of ideas, or amusement, spending hours browsing through platforms and websites until bedtime. For some, this served the purpose of acting as an aid in purchase decisions, reading and comparing product reviews and tests, while for others the escape from everyday concerns or societal issues allowed them to dream and be inspired and to get into an aspirational shopping mode. Others referred to this as window shopping from home, as a guilty pleasure: browsing items they could not afford, but dreamt about having.

> *Customer #6: "There's something about entertainment and relaxation as well. If not, you wouldn't be browsing and exploring price deals and so on. So, at least to me, there's some sort of value that's driving this (activity) besides covering the need for new trousers or a new shirt. There's something else there as well."*

This perspective was shared among several customers, who also reflected on their own contradiction between the expressed need for efficiency and for saving time while simultaneously browsing for hours. Therefore, on closer examination, it seems clear that the customers experienced challenges when shopping during the daytime, and therefore saving time *per se* was not important, but instead what time to save. Thus, the customers had no problems spending time browsing different categories late at night. Even when they browsed through all of the search results on the platforms, it did not really matter to them, only the time at which they browsed. Thus, it was the timing of their shopping that was the determining convenience factor.

The final issue when it comes to convenience concerns *payment.* Interestingly, for the customers, it took more time to pay online than offline, as true one-click shopping did not exist. Instead, the customers had to go through several steps to complete and validate an order. However, local and global third-party payment providers (e.g., PayPal, Klarna, VIPPS) play an

important role in adding *trust* to the purchase process, and the flexibility of payment options local payment providers offer, such as invoicing or delayed payment, was also valued by the customers.

> *Customer #1: "I usually prefer those with an agreement with Klarna (payment provider). My personal opinion is that it feels more trustworthy. When I discover a website and notice Klarna there, I know I can trust them. If not, then I wonder whether this website or platform is legitimate or a scam, and then I just avoid it."*

Another benefit of including third-party payment providers is that it enables a faster and more convenient checkout process for customers across different websites. Shipping addresses and payment details can be stored centrally, making a fast checkout process possible without registering an account on every single platform or website.

> *Customer #8: "But take Klarna as an example then. I don't have to enter my credit card details. I just click on 'buy' and my address and everything is ready, so it's very easy. It even takes less to buy items than in the physical store. The threshold is a bit lower."*

Trust

For the customers, trust was about the feeling of control, which entails challenges for platforms that have expanded from online retail to a marketplace model. By introducing complementors, uncertainty has been introduced as well, as control over who they are transacting with has been reduced. For example, the customers were concerned about how warranty issues were handled or how the platform dealt with products that did not meet customer expectations. They therefore did their own research to ensure the credibility of the seller or the platform and left their shopping basket at checkout if they felt unsure. As a result, customers tended to choose well-known brands that in themselves provided the necessary trust or that withheld necessary mechanisms to reduce risk. For example, Zalando and Amazon benefit from having a strong brand, with Zalando particularly providing a close integration between the platform brand and the complementors:

> *Customer #13: "I trust Zalando as a brand, so I do not expect to have any trouble there. Same goes with Amazon. I trust Amazon."*

Other platforms, like Aliexpress and Ebay, display how many items the complementor has sold and provides reviews that build trust. Still, the customers relied on platforms to have the necessary safety mechanisms in place to protect the buyers.

> *Customer #15: "While I don't pay particular attention to who the seller is, I do take notice of it. But I think the platform provides safety, so I'm really not that concerned. But of course, at eBay, you know that you might receive the item from China, or from Germany for that sake."*

Complementors were mostly concerned with the customer perspective, with ensuring that the platform worked well for customers, with providing good customer service, and with handling warranty issues. They did acknowledge that trust was important for customers, however, particularly with expensive goods, about which trust was also important to them:

> *Complementor #1: "Some customers say, 'I haven't heard of this brand or seller, but the platform I know, and I feel safer if I shop there. I know they (the platform) will help me with warranty issues, and I know that they will be there in five years from now, and I know there is someone to talk to. But this small seller I've never heard of, and I'm reluctant to place my order directly there'."*

TABLE 36
Key quotes: Scope-driven value logics

	Customer	**Complementor**
Capabilities	"I like the way Zalando provides recommendations for completing an outfit. If you buy trousers, then the platform presents complementary items other customers have purchased with the item to complete the look. Then, I think, 'Aah that's clever.' So even if I haven't made any purchases based on these recommendations yet, I think it's interesting and cool. I do get inspired by other people this way" (Customer #13),	"I believe algorithms, used correctly, are a fantastic tool to improve the customer experience. But I also believe that many still have a long way to go" (Complementor #4).
Core functionality	"What's important for me is that the user interface is easy to use and understand, that it's easy to search and find the product you're looking for, and that you don't have to browse through 10 different pages before you arrive at your desired option. Then it just doesn't work" (Customer #19).	"The platforms display our product to promote breadth in the category and utilize us to obtain knowledge. But in the moment of purchase, they try to convince the customers to buy their own brands. Quite a contradiction from the way we operate, as we list competing products in our store, and let them compete equally. In my experience, that's not the way this platform [anonymized] operates—they favor their own brands" (Complementor #1).
	"You say it's effective, but I can actually spend an hour online, searching and browsing for what I need. But if I'd been in a physical store, I would've only spent half an hour" (Customer #1). "Yes, concerning the daytime, I can shop right when it suits me, so it's really not about saving time, but more the timing of it" (Customer #15).	"We see that the customers to a greater extent want to save time—convenience, they want the convenience, the simplicity of finding everything in one place. That's why marketplaces are relevant to us. As customers, we want to meet our needs in one place, and get them delivered home. So, not spend time, but save time, where it's possible. I think time has been a scarcity factor for a long time, but I think it will guide the way we use and think about platforms" (Complementor #4).

6.2.4 Interaction-driven value logic

The interaction-driven value logics builds on the assumption that value originates from the quality of interactions between the platform's users rather than the content offered to users or by complementors. These interactions take place either on the same side of the platform (i.e., between customers or between complementors) or across its sides (i.e., between customers and complementors). Both customers and complementors clearly identified the value in an interaction-driven value logic but acknowledged that such interactions often occur outside the platform ecosystem, thereby addressing a clear future potential for platform providers to explore.

6.2.4.1 CROSS-SIDED CUSTOMER–COMPLEMENTOR INTERACTIONS

Interactions between customers and complementors take two different forms, with value originating from either the dialogue between the customer and complementor or reviews and ratings. The common value delivery element is the *quality of the interactions*, increased *trust*, and *reduced risk* for both customers and complementors.

In a *cross-sided dialogue*, customers are likely to use a variety of communication channels, such as chat, email, online forms, and telephone. Typical questions are related to product specifications if the product listing is considered deficient but, most commonly, interactions seem to be follow-up issues after an order is made, questions regarding delivery, or, in cases of faulty products, warranty or invoicing issues. But, surprisingly, these interactions often occur between the customer and the platform provider's customer service, not directly with the complementors themselves. Cases in which a direct dialogue with the complementors typically occurred on platforms were characterized by a large number of small, individual complementors like eBay, Aliexpress, FINN, and, to some extent, Amazon. Initiating this dialogue with the seller enhanced trust and reduced the risk of a wrong purchase.

> *Customer #19: "As FINN.no concerns, as long as you achieve a dialogue with the seller, and are kind of being assured there is actually someone (a person) on the other side, then yes, it is easier to trust that seller."*

Some customers still preferred face-to-face interactions and considered the quality of the digital interaction to be insufficient. They feared possible misunderstandings, as well as missing

opportunities to bargain for an even better deal, as some of the richness of in-person conversations is lost in the digital space. On the contrary, others appreciated digital interactions as they could ask questions more anonymously and avoid potential embarrassment by having little product knowledge.

These observations were also shared by the complementors, who verified that interactions with customers were mostly connected to specific orders, after a purchase was made, and that communication usually concerned follow-ups on orders, return handling, and warranty issues. As Complementors #1 and #2 highlighted, there were, however, examples of platforms that allowed contact in advance of a purchase (e.g., Amazon), meaning that some had come further than others in facilitating direct dialogue. Still, these interactions were directed through the platform's messenger service, which hindered direct contact with customers and raised issues about the quality of such interactions.

> *Complementor #5: "This way of communication is a bit difficult for us. We feel the distance between us and the customer is too large (…) but maybe a customer at Zalando understands this, because they are shopping with Zalando, not on our website. And I'm afraid Zalando won't go in this direction because they probably don't want to."*

One particularly interesting finding, however, was that both customers and complementors valued direct interaction, with a closer examination revealing examples of extensive dialogues between customers and complementors, but only when they occurred on social media platforms, message boards, or on the complementors' own website rather than on the transaction platforms. For example, one complementor benefited from interactions as an important source of ideas and insights, as well as for concept testing in product innovation:

> *Complementor #4: "We once had made some very simple sketches of a t-shirt with prints and wondered whether there was a market for this (product). And then, after like 4,000 comments later, you know (it). Maybe not all 4,000 people end up buying the t-shirt, but it definitely shows a great level of engagement. And when you have engaged in a product (development), offered your opinion about it, the color of it, then you get, in my opinion, stronger (customer) loyalty, where you will look at the product, and maybe buy it, and tell others that you have given feedback on this product."*

For Complementor #4, Facebook had become a platform for market research in that dialogue could be pursued that would yield suggestions for product names, color choices, and product features or attributes.

Cross-sided reviews and ratings are a form of interaction in which value originates from the customer who produces the content. The customers stated that they were grateful for reviews, and always read them, as they offered information regarding the quality of the product, the quality of the seller, and the experience in use.

The customers evaluated the number of reviews relative to the size of the complementor, the number of positive versus negative reviews, and also how the complementors responded to both positive and negative reviews. If the complementor demonstrated commitment to customers by delivering a great customer service, this built *trust* in the complementor, which is crucial, especially for smaller or unknown complementors.

Customer-provided reviews and ratings also build trust in the product quality itself and reduces *search costs* for the customer. A star rating provides a quick overview and increases the efficiency of finding a relevant product, while text and images provide a more honest view and increase confidence in product quality while improving the *customer experience* of using the platform.

> *Customer #13: "To begin with, I trust ordinary people who write a review a hundred percent more than the complementor's ability to sell. In a way, it's different with other customers."*

The customers also reflected upon fake reviews, of either a positive or negative character, and were inherently skeptical about reading reviews, claiming that they investigated the trustworthiness of the reviewers when they perceived the content or rich descriptions to be valuable.

> *Customer #12: "It's a great tool, but at least at Aliexpress, I'm not sure whether it is a trustworthy tool. But at Zalando it seems to be. When others say they are very happy, or that the size is a bit too large or a bit too small, it is usually accurate. So, I don't*

believe there are actually customers writing the reviews at Aliexpress, while I believe they are real at Zalando."

The complementors were also very concerned about reviews, as negative reviews were bad for their business, and there was also a risk of getting excluded from the platform. However, complementors mostly appreciated the reviews because they ensured better quality in both products and services. As they saw it, reviews are some of the most important clues about the customers' decision making, and they believed it was more important to customers to know what other customers say than what they as producers or designers claim. Reviews therefore served the purpose of being an independent assessment of their offerings.

Complementor #4: "It creates value because, when I look at myself, I make my choices based on what other customers have said before. So, my choices are based on a lot of unknown people's opinions rather than information from the producer. So, we try to be very grateful toward our customers about this."

Also, as the complementors argued, sometimes, customers misunderstand something, and so it is important to correct that information. Other times, customers need help or assistance, and instead of reaching out to the complementors directly, they write about it in a review. It is thus important for complementors to reply to and address the customers' concerns but also to assure them that they will find a solution to their problem. In doing so, they also demonstrate their efforts to other customers as well.

Besides being valuable concerning support issues or product development, complementors can also utilize product reviews for their own benefit in their marketing communication, using both star ratings and customer statements as evidence of how customers actually perceive and use their products.

Complementor #4: "It creates value because we can use it in our marketing communication: '189 customers think these outdoor trousers are the best', or 'this is what this customer thinks about the product'."

Because the customers were fond of learning about other customers' product recommendations, these recommendations served as better marketing than having their own marketing manager claiming that their products were excellent.

6.2.4.2 ONE-SIDED COMPLEMENTOR INTERACTIONS

Among the complementors, there were very few interactions with other complementors in relation to platform activities. Although they did not avoid such conversations, they were not a priority—rather, they were a future goal. Interactions among complementors were therefore performed more on an *ad hoc* basis, and were more informal, based on personal networks rather than being a systematic or structured collaboration.

> *Complementor #4: "Working with e-commerce and platforms for many years, the network in Norway isn't that big, so I know the big players like [brand] and [brand], and others that, in reality, are competitors, but I know them, and still ask them for advice. I discuss with them how they are performing, what the current month looks like, and so on."*

Typically, these conversations included topics such as choice of platform with which to cooperate, which platforms to trust, how to improve the matching of supply and demand (through price and product optimizations), and how to utilize supporting marketing activities to improve performance on the platform. But, overall, these interactions were utilized to a rather limited degree compared to cross-sided interactions, which potentially had more value and could generate more benefits for complementors.

6.2.4.3 ONE-SIDED CUSTOMER INTERACTIONS

The one-sided interactions between customers in this study were generally categorized into two groups: interactions with family, friends, or colleagues, and interactions with strangers. Common for both was that, in line with the literature, such interactions took place through communication channels other than transaction platforms. As with the cross-sided interactions, the quality of the one-sided interactions was the primary value delivery, with the additional benefit of reducing risk and transaction and search costs for the customers.

Among friends and relatives, interactions took place either in person or through messages and discussions via SMS, Snapchat, WhatsApp, and Messenger. Here, customers discussed product characteristics and brands, utilized product expertise among the group members, gained recognition and approval in the group, and also initiated group buying behavior to share shipping costs or exceed the threshold of free shipping.

For the other group, consisting of interactions with strangers or more distant relationships, customers engaged in a range of online groups and discussion forums, ranging from general forums to more specific interest groups.

> *Customer #11: "Those you often meet if you ask general questions—for example, on Reddit or Quora, where you can ask general questions—are people who comment on all sorts of stuff, and it's amazing the level of disagreement they have about the smallest issues. But if you're looking for specific products, there always an expert or a dedicated interest group (forum) for the product you're looking for."*

However, the value of the interactions was also related to *identification* with the group, about which getting advice from similar customers also seemed to affect the perceived quality of the interactions (see Table 37). In cases in which strong identification was combined with product expertise, perceived value from one-sided interactions became even higher.

> *Customer #19: "For example, I do some diving, and then it's smart to make inquiries of those who know this subject. Let's say you're buying a new breathing valve, what valve should I buy? Then you get suggestions for which ones to try, and obviously I take this advice into account."*

Thereby, both customers and complementors reflected the value of interactions, but they also acknowledged that such interactions commonly take place outside the focal platform ecosystem.

TABLE 37
Key quotes: Interaction-driven value logics

	Customer	**Complementor**
Cross-sided interactions	"The reviews from other customers are crucial to me. I'm very taken up by them" (Customer #18). "It is quite easy to reach out to the seller if you need any support concerning the product you have purchased. For example, at Aliexpress, there's this chat, or message function, where you can ask questions directly to the seller. I have done that, and it works" (Customer #19).	"There is something about trust that I think is very important here. For better or worse, but if the product didn't quite fit with the expectations, that's okay, because the customer reviews are a way of improving our products" (Complementor #4).
One-sided customer/ complementor interactions	"I discuss on Facebook with other mums, for example. This children stuff, where, if there are things you are unsure of, should I buy this or that, you can ask whether anyone has experience with the product. (..) I've had numerous suggestions and help from these discussion forums on Facebook and mummy groups" (Customer #12). "If I'm looking for an item with some specific properties, where I have three different options, I ask if anyone has those products and can recommend any of them. Of course, you listen to the feedback you get (Customer #19).	"We rarely speak with other complementors. We don't mind doing it, but we don't have any common arenas to discuss the challenges in our industry. We definitely would have benefited from it, but we don't have it today" (Complementor #1).

6.3 Discussion

In this third study, I generally found support for the four proposed value logics, but there were also some complexities in the findings—for example, the ways in which value logics are integrated or interfere with each other, how customers and complementors (differentially) view value logics, or how their reflections contradicted each other. These complexities may emerge due to different understandings of the relationships in the value logics or because of differences in perspectives on value delivery or value capture mechanisms, as reflected, positively or negatively, among customers and/or complementors. Table 38 provides a summary of these reflections of value logics.

TABLE 38

Reflections on value logics

Category	Theme	Customer	Complementor
Scale-driven value logic	Size and reach of network	? Size in general ✓ Matching supply and demand N.A.	? Size in general ✓ Matching supply and demand ✓ Access to markets
	Economies of scale	✓ Low price ✓ Customer efficiency × Market power × Matching at scale with data	× Low price ✓ Complementor efficiency × Market power × Matching at scale with data
Complementor-driven value logic	Complementor network size	✓ Competition and lower price ✓ Product variety*	× Competition and lower price ✓ Product variety
	Complementor innovation	✓ Product information quality* ✓ Product quality*	✓ Product information quality ✓ Product quality
Scope-driven value logic	Capabilities	✓ Data analytics and insights ✓ Customer orientation and relationship management	✓ Data analytics and insights ✓ Customer orientation and relationship management
	Core functionality	✓ Compare options ✓ Discovery and complementarity ✓ Convenience ✓ Trust	✓/× Compare options** ✓ Discovery, × complementarity ✓ Convenience ✓ Trust
Interaction-driven value logic	Cross-sided interactions	✓ Quality of interactions	✓ Quality of interactions
	One-sided complementor interactions	N.A.	✓ Quality of interactions
	One-sided customer interactions	✓ Quality of interactions ✓ Identification	✓ Quality of interactions N.A.

✓ = value logic is positively reflected (i.e., it creates value for the customer or complementor)
× = value logic is negatively reflected (i.e., represents a disadvantage)
? = indifferent about the value logic (i.e., does not represent any advantage or disadvantage)
N.A. = value is not reflected, represented, or relevant
* = reflects the value delivery, but indifferent regarding the source
** = represents an opportunity, but also a challenge, for the complementor

6.3.1 Reflections on the scale-driven value logic

In the scale-driven value logic, one surprising finding was how customers did not reflect the value of size (of network) but rather focused on the platform as the transaction partner. Also, for complementors, it was not size in general but instead the potential reach the network

represents that was of value. Complementors therefore evaluated the target group of the platform and assessed whether there was a fit with their brand offerings. A platform with a large customer base outside the complementors' targeted audience was therefore of less value to them than a platform with a smaller, but more relevant, market or customer profile. Thus, what was reflected upon from the size of the network was the value of matching supply and demand such that customers could find what they were looking for and complementors could find customers for their products or services, including access to new markets.

Platforms were therefore, from the complementors' point of view, seen as a distribution channel, one through which the market potential of each platform was considered along with possible cannibalization across other marketing channels. While the value delivery of low price was reflected positively among customers, who observed how increased competition lowers the price, it was reflected negatively among complementors because low price represents a disadvantage, namely reducing their profit margins. Still, the platform model was considered more profitable by complementors compared to a traditional wholesale model, as it means having to surrender a substantial part of their margin to the retailer or distributor.

Consequently, what became evident through the interviews was the importance of efficiencies and the ways in which the value capture mechanisms of platforms were reflected among customers and complementors through their own efficiencies in using them. For customers, efficiencies were about finding everything in one place, saving time and energy; whereas, for complementors, efficiencies pertained to resource utilization, with complementors preferring to partner with one or a few platforms than aim for a multihoming strategy that included several platforms, mainly because of the internal resources each platform required.

While platforms derive benefits through the scale of data, this value was negatively reflected in most cases, among both customers and complementors, as they were concerned about platforms exploiting their market power to capture a disproportional share of the value created. Nevertheless, there were exceptions. For instance, one complementor, in discussing the Komplett Marketplace in study 2, highlighted the fairness of Komplett's algorithm, according to which all complementors, as well as the platform itself, were ranked equally by transparent criteria: availability, delivery time, price, reviews, and product presentation. Thereby, the

complementor confirmed the platform provider's own claim, namely that its data would benefit all parties.

6.3.2 Reflections on the complementor-driven value logic

As with the scale-driven value logic, the customers did not reflect on the size of the complementor network or who was providing content to the platform, be it the platform itself (wholesale model) or any complementor (platform model). Consequently, the customers did not differentiate between large retailers, platforms with a few complementors, or platforms with a large number of complementors, but rather focused on the value delivery of variety and lower prices due to competition, representing a partial or indirect reflection of the value logic (indicated accordingly in Table 38).

For the complementors, as in the scale-driven value logic, the size of the complementor network was mainly negatively reflected due to increased competition and price pressure—except for variety, as it attracts attention and builds category awareness, which can be beneficial for complementors. The downside was the risk that a platform would showcase its variety but then employ it in such a way as to cause unfair competition with the platform's own inventory or preferred complementors. Therefore, some complementors have started to "platformize"[31] their own operation or brand store and increase product variety by including smaller complementors in their own portfolio (Hagiu & Altman, 2017; Wichmann et al., 2022). Others dealt with this challenge by only selling a selected range of products on the platform in order to stimulate curiosity about the brand, while still others adapted their product offerings based on seasonality in the market. Still, the complementors ensured that they provided quality products that made the brand look good and potentially stand out from their competition, as there is no clear option to sell remaining inventory or low-selling products on the platforms.

Concerning the value logic of complementor innovation, customers were indifferent to complementors as the source of increased product quality but still valued the opportunity to

[31] I use the term "platformize/platformization" to describe the process of transforming an existing (retail) business to also include platform elements, such as complementor-provided content (third-party sellers), on their site (see also Wichmann et al. (2002), "The Platformization of Brands." *Journal of Marketing, 86*(1), 109–131).

choose between different qualities and brands. For example, at Aliexpress, the customers were aware of quality differences but were still unable to identify—and thus draw conclusions about—the complementor network as the origin of innovative products. Instead, they focused on the quality of the services provided by the complementors (product information quality) and how they responded to inquiries concerning shipping delays and warranty issues. Complementors, on the other hand, positively reflected on the value logic and their role in providing quality products and services to the platform, as well as the benefits they derived from doing so. The complementors also demonstrated how the value of product information is greater in a platform model because it is decentralized. The complementors were often specialists in their product category, and because they had more control over product presentation, product information was more accurate and precise compared to other marketing channels, contributing to improved matching, potentially more sales, and fewer product returns.

6.3.3 Reflections on the scope-driven value logic

Both customers and complementors equally reflected on the value of capabilities, on how the platform, through data analytics, improved the value delivery of matching through recommendations to both complementors (what to supply) and customers (what to buy). This also included operational improvements, such as improving the customer journey (for customers) and refining search results, rankings, and differentiation for complementors. Still, while reflecting on the value of customer orientation and relationship management, both customers and complementors addressed the potential for improving both platform regulation and governance procedures, as well as providing value-adding services. Further, the complementors acknowledged that the heterogeneity of customer preferences also applied in these relational areas and strived to achieve a balanced view across their different distribution channels. Additionally, when the platform was considered trustworthy by customers, the complementors saw the potential for a legitimacy spillover effect between channels.

Regarding the core functionality of platforms, the customers clearly valued the functionality of product comparison, as it empowered them to make better decisions, while the complementors saw it as an opportunity to gain visibility for their brand and also a challenge due to competition from direct comparison. This view also applied to discovery and complementarity, which the customers clearly viewed as beneficial. The complementors, on the other hand, perceived the

benefits of being discovered but not necessarily those of complementarity because they did not gain insights into customer behavior besides their own sales. However, convenience and trust were both equally reflected on among customers and complementors, who saw them as providing mutual value in enabling transaction fulfillment, reducing search costs, and reducing risk.

While reflecting on the value logics, some challenges were identified that were connected with realizing benefits for the complementors. As with complementor efficiency in the scale-driven value logic, technical integrations were highlighted as a barrier to realizing potential benefits, especially in a multihoming strategy. Also, when platforms utilize complementors to reduce their own risks and the costs of inventory, costs for complementors typically increase. For customers, despite their focus on customer efficiency in the scale-driven value logic, a contradiction was found: While platforms serve a purpose as a form of entertainment and relaxation, they also consume time, despite customers being concerned about saving time. It was found, however, that the customers were less concerned about the amount of time they spent on the platforms than about what time of day they spent on them, indicating that platforms should cater to different needs in different usage situations.

6.3.4 Reflections on the interaction-driven value logic

Finally, in the interaction-driven value logic, both customers and complementors benefited from cross-sided interactions, as they increased trust and reduced risk between transacting actors. This seemed to be particularly important regarding transactions between customers (C2C) or between customers and individual sellers (e.g., on eBay, Amazon, Aliexpress), and especially important concerning resold or secondhand goods, about which dialogue often occurs before the transaction is finalized. In B2C transactions, however, interactions foremost take place after a transaction is made.

The findings also revealed that dialogue takes place outside the platform's communication channels in a wider set of instances, from information seeking to product development. Still, interactions through reviews and ratings seemed to be the most developed form of interaction that both customers and complementors found to be valuable.

While the complementors identified with one-sided complementor interactions, there were few examples of this facilitated by either the platform or the complementors themselves. Such initiatives were mostly performed on an *ad hoc* basis, without a clear demonstration of the potential value complementors could benefit from these interactions.

The one-sided customer interactions were reflected on among those customers who highlighted the quality of interactions and reducing risks and search costs. The complementors reflected on this logic as well, acknowledging the role of interactions in customers' purchase process. The findings, however, indicated that such interactions mostly take place outside of the platform ecosystem, either among family and friends or strangers on social media or in online communities, where identification also plays a part (in affecting the quality of interactions). Still, given the amount of interaction taking place, and the value this provides to both customers and complementors, this represents a clear potential for platforms, which I will return to in the final discussion of the thesis.

7 General discussion

As the platform model is gaining popularity across a wide range of businesses and industries, this thesis first investigated how the platform model creates new patterns of value creation and value capture via a value creation perspective (Shree et al., 2021). While recent reviews of the platform literature have identified research streams (Gawer & Cusumano, 2014; Thomas et al., 2014), platform types (Cusumano et al., 2019), and platforms in specific contexts, such as sharing (Eckhardt et al., 2019; Perren & Kozinets, 2018; Wirtz et al., 2019), social media (Perren & Kozinets, 2018), and searching (Yablonsky, 2016), most have concluded that more subject-oriented overviews are required and that we know too little about the ”benefits of platform businesses to users and society, and not only to investors” (Cusumano, 2020, p. 11).

Therefore, in addressing this research gap, and answering the first research question (*How is value conceptualized across the digital marketplace platform literature*), I first identified streams of platform research with different approaches to value creation and then 15 categories representing aggregations of the authors' basic concepts that reflect both generic and platform-specific elements of value. These elements range from operational mechanisms of value capture, such as platform-specific revenue models (e.g., Fang et al., 2015), to abstract principles of value co-creation (e.g., Ramaswamy & Ozcan, 2018b). The categories were then structured along the value dimensions of business model research (Massa et al., 2017), identifying sources of value creation, means of value delivery, and mechanisms of value capture, and providing an extensive overview of how value is conceptualized across the platform literature.

A key finding was how the literature differentiates between the platform provider, the complementor, and the customer as the originator of value, and represents a fundamental difference in how we look at value creation from a traditional value chain business. Another finding was how a source of value may be utilized either directly or implicitly through other sources or means of value and, similarly, captured either directly or indirectly. For example, network effects have a significant impact on platform growth (Gawer, 2014; Panico & Cennamo, 2020) but do not create value alone, but instead indirectly through size (e.g., Armstrong, 2006; Caillaud & Jullien, 2003; Evans, 2003b; Hagiu, 2009; Parker & Van Alstyne, 2005; Rochet & Tirole, 2003). Similarly, value was either captured directly through efficiencies such as cost reductions (e.g., Remané et al., 2022) or indirectly through differentiation mechanisms such as loyalty (e.g., Clauss et al., 2019). Thus, this finding highlights the need to

investigate the path from value creation to value capture, and the interdependencies between different value concepts to get a better understanding of how value is created in a platform business model.

To answer the second research question (*How are relationships between value conceptualizations manifested in the business model of a digital marketplace platform company*), I structured the different relationships between the value dimensions of a business model (Teece, 2010), and introduced the concept of value logics to better capture underlying beliefs about the relationships between sources of value creation, means of value delivery, and mechanisms of value capture in a platform business model. Theoretically, I placed value logics in relation to existing research on logics (institutional logics, organizational logics, enterprise logics, dominant logics), with value logics residing between organizational and enterprise logics, reflecting both organizational-level beliefs and their implementation in organizational routines and systems (Besharov & Smith, 2014; Bundy et al., 2013; Crilly & Sloan, 2012; Spicer & Sewell, 2010). The resulting framework, which provides four overarching value logics, revealed that extant research in the platform literature reflects different value logics in which not just the definitions and the locus of value creation differ but fundamental mechanisms underlying value creation as well. A multiple-case study validated the proposed value logics from the platform perspective, with three platform companies shedding light on how these logics were manifested in platform managers' beliefs and how they were operationalized in a platform context.

Finally, while Adner (2017) described the key elements underlying a shared value proposition based on activities and structural positions, I argue that platform business models include the sharing of value logics among the different value-creating partners of the ecosystem, not just the focal platform itself. As the platform literature focuses on the value capture mechanisms of platform owners and complementors (e.g., Gawer & Henderson, 2007; Zhu & Liu, 2018), and consumer benefits have received limited interest in the literature (Hänninen, 2020), study 3 examined the perspectives of customers and complementors concerning the proposed value logics. This investigation not only contributes to a more unified view of value logics in the context of marketplace platforms but also answered the third research question: *How are value logics reflected in beliefs among customers and complementors of digital marketplace platforms?*

7.1 Discussion on value logics

The scale-driven value logic demonstrates how a platform company benefits from increased efficiencies and increasing returns to scale (as in a traditional business model) in line with the extant literature (e.g., Eisenmann, 2008; Panico & Cennamo, 2020). However, my findings also illustrated how the platform model allows for a faster scaling of the business at low risk. This was exemplified in the case of Zalando, which, with the help of complementors, was able to scale its platform in a more efficient way than scaling its traditional wholesale model. Insights gained from this case contribute to our understanding of how economies of scale influence value in a platform model.

The empirical findings also demonstrated how size is important in delivering the value of matching supply and demand and realizing economies of scale, an outcome reinforced by network effects. For example, Komplett was explicit in its contention that network size and scale were related, and also stated that scale was necessary for funding network growth. While this finding is in line with the extant literature (e.g., Eckhardt et al., 2019; Edelman, 2014; Rangaswamy et al., 2020; Yang et al., 2020), FINN argued, in contrast, that network size might be dependent on relevant market size, and that network size in itself was not a goal. While this statement in itself might sound plausible, we know from the platform literature that customers in an interdependent relationship place more value on platforms that include a large number of complementors (and product offerings on the platform), while complementors prefer platforms with large user bases (e.g., Altman & Tushman, 2017; Boudreau & Jeppesen, 2015; Zhao et al., 2019). Therefore, to achieve a relevant market across a wide range of complementors' needs would directly imply a large network for the platform. Even if we include the customer's indifference regarding whether products are sold on a wholesale or platform model, they still relate to the value of a wide range of available options. Thus, all of these perspectives demonstrate how size and scale are closely related in a platform model, and that a certain network size is needed to achieve a sufficient scale of operations. This is markedly different from traditional value chain models, in which one can achieve scale effects from one, or a few, customers and suppliers (e.g., in governmental markets).

Compared to the platform literature's focus on efficiencies as a value capture mechanism (e.g., Abdelkafi et al., 2019; Hagiu, 2006; Hagiu, 2014; Helfat & Raubitschek, 2018; Spulber, 2019)

another contribution from the findings was how efficiencies served as a source of value creation, and was key to generating growth. This was evident in how both customers and complementors emphasized their own efficiencies in transacting with the platform, with customer efficiencies relating to finding everything in one place, and complementor efficiencies relating to the internal resources each platform seizes and how to access markets or customers in a scalable and cost-efficient way. For the platforms, efficiencies in their own operations and technologies were so important in creating value that I highlighted them as a distinct value logic in the revised framework (Table 31). In particular, the platforms highlighted scalable technology solutions and infrastructure (using data) as crucial to achieving growth (scale-up of platform) and the necessary efficiencies. For example, Zalando completely rebuilt its technology solutions, Komplett invested heavily in developing, optimizing, and adapting its technology despite partnering with a leading retail platform software, and FINN is currently rebuilding its technology platform. These investments are necessary to be capable of scaling up operations more efficiently, reducing frictions, and realizing the potential value from its customer base (e.g., larger basket size, higher frequency of visits, increased loyalty, revenues from cross-selling, and advertising revenues).

Consistent with how the literature highlights how complementors provide variety—matching heterogenous needs, reducing search costs and improving use convenience (e.g., Cennamo, 2018; Eckhardt et al., 2019; McIntyre & Srinivasan, 2017)—findings confirmed how complementors create value in the complementor-driven value logic. From the platform's perspective, utilizing complementors as the source of value is therefore an effective way of increasing both the breadth and depth of product categories, as the platform can realize both efficiencies (e.g., reduced inventory risk and inventory cost) and differentiation mechanisms (e.g., price premium, increased loyalty). However, a surprising finding in study 3 was how customers not always identified complementors as the source of value, even though they benefitted from the value delivery of increased variety. This may have implications of how platforms present or communicate variety to display the role of complementors in platform value creation.

Further, while the platform literature highlights the benefits of complementors' access to new markets (e.g., Braune & Dana, 2022), both Zalando and Komplett scaled their company more efficiently with the help of complementors rather than supplying all of the products themselves.

This issue has previously been raised by McIntyre and Srinivasan (2017), who discuss how platforms leverage complementors' architectures and networks, and is a different approach to growth than that pursued in a traditional wholesale or retail model. The findings thereby confirmed how this logic is strongly associated with the scale-driven value logic and reinforces network effects and in line with the reasoning by e.g., Gawer and Cusumano (2014) and Panico and Cennamo (2020), fueling additional growth of the platform.

In addition, findings indicated how the combination of a strong brand and variety from complementors also drives organic traffic through improved search rankings (e.g., Google search), consequently extending the size of the network and representing an additional efficiency mechanism not previously clarified in the platform literature.

An additional specificity of a platform business model is how complementors operate with a high degree of autonomy (e.g., Hein et al., 2020; Hänninen & Smedlund, 2021; Kretschmer et al., 2020; Parker et al., 2016), which implies that product decisions are decentralized. This has implications for the quality of both the products offered and the information provided. Even though the literature points to complementor innovation (e.g., Gawer & Cusumano, 2014; Lan et al., 2019; Thomas et al., 2021), there was scant evidence of complementor innovation from the platform's perspective (in study 2). However, the platform companies acknowledged that innovation risk shifted to complementors, and they gave up some control in return for reduced costs and risk of innovation. The complementors themselves, however, reflected on their importance in providing high-quality content, with study 3 shedding light on how complementors adapt their product offerings and innovate to meet the needs of customers, reflecting the platform literature's focus on how quality and innovations are key to (platform) success (e.g., Broekhuizen et al., 2019; Hagiu, 2009; Nuccio & Guerzoni, 2019). Further, because complementors have product expertise and knowledge in pricing and communication within their field (i.e., product category), the quality of product information also increases, which benefits the customer, the complementor, and the platform. In other words, the complementor-driven value logic allows the platform, as a generalist, to deliver the value of a specialist across a broad range of categories.

The scope-driven value logic demonstrates how value is created through the application of resources or capabilities controlled by the platform and is exemplified through the utilization

of excess capacity and scoped capabilities. In line with the literature and the conceptualized value logics (e.g., Laczko et al., 2019; Nuccio & Guerzoni, 2019; Perren & Kozinets, 2018; Trabucchi & Buganza, 2020), the platforms capture value through new revenue streams from diversification outside their primary activities. However, the findings also demonstrated how excess capacity of operations creates value for complementors, which are offered logistics or value-adding services at an attractive cost. This improves efficiencies for the complementor and fuels additional scale benefits for the platform. As such, the operationalization of the value logic in a platform context reinforces the potential contribution of scale benefits.

In addition, the findings showed how platform companies focus their resource utilization and technology to optimize their core functionality, in correspondence with the literature's focus on both transactional functionality, and exchange-related value such as ease of use and matching supply and demand (Caldieraro et al., 2018; Cennamo, 2018; Hein et al., 2019a; Yang et al., 2020). The matching of supply and demand is crucial to generating network effects, and in line with Hänninen et al. (2019) and Hänninen (2020), the scoped capabilities of data analytics improve both matching and customer experience (i.e., relevance) through personalization and recommendations, thereby increasing both efficiencies and differentiation through loyalty. Platforms also highlight how capabilities in relationship management and governance increase efficiencies (growth) and market power and, despite their concern over the platform's market power (as in Curchod et al., 2020; Zhu & Liu, 2018), complementors ask for more governance, rules, and regulations. Complementors are concerned with fair competition and the quality of the platform and perceive that platforms do not have the necessary governance mechanisms in place or are not enforcing them to a sufficient extent.

Finally, the interaction-driven value logic was shown to be the least developed logic in terms of value creation and also the one whose operationalization was still in its infancy. Nevertheless, this value logic represents a future potential that marketplace platforms have barely touched upon, even though it might improve matching and customer experience, strengthen loyalty to the platform for both customers and complementors, and provide opportunities for additional revenue streams.

The one-sided customer interactions, as explored in study 3, were present across a wide range of communities and communication channels, with customers valuing the quality of

information they obtained from such interactions, in line with the findings by Chu and Manchanda (2016) and Sun and Tse (2009). These interactions reduced their search costs and as Kim and Kim (2022) argued, played a role in identification with a peer group. However, the interactions took place outside the marketplace platforms, and platform managers noted, but have yet to determine how to facilitate, these interactions on their own platform or within their own ecosystem.

While the literature identified Amazon's seller forum or Alibaba's merchant community (Lee et al., 2018; Li et al., 2018; Trabucchi et al., 2021b) as communities for complementor interactions, little evidence was found about how complementors benefit from or make use of these one-sided interactions with other complementors. Although they did not avoid conversations, they were not seen as a priority but instead a future endeavor. This finding echoes study 2, in which Zalando, for example, experienced more participation from German and Southern European complementors in their partner forums than from Nordic complementors, which were reluctant to engage in such events.

The cross-sided interactions were the form of interactions that were the most developed on marketplace platforms. I exemplified this logic with reviews and ratings as one type of content (provided by customers) that is a source of value to platforms for building trust in complementors and reducing search costs for customers (Clauss et al., 2019; Täuscher & Laudien, 2018; Zervas et al., 2017). The complementors also utilized interactions as an opportunity to receive suggestions for product innovations and, similar to the literature (e.g., Eckhardt et al., 2019; Hukal et al., 2020), study 3 provided examples of how complementors involved their customers in their product development, suggesting and evaluating product features, and even naming products. For the platforms, this was also an opportunity to obtain information about customer needs, with FINN demonstrating how they analyzed user interactions to improve the core functionality of its platform and to exercise governance among its transaction partners, which represents an extension of the literature's focus on how platforms use interactions as an aid in product entry decisions (e.g., Etro, 2021; Toh & Agarwal, 2022; Zhu & Iansiti, 2012).

In the following, I will discuss how value logics can be combined in a platform business model before discussing the theoretical and managerial implications of my findings.

7.2 Combinations of value logics in platform business models

Returning to Bezos' napkin, the drawing illustrates how value for customers, complementors, and platform firms interacts through combinations of value logics of both a generic and more platform-specific character. In fact, in the case of Amazon, not only two, but most of the introduced logics, underlie the business model, and, as I have discussed, my empirical studies demonstrate how some of these value logics appear connected, which reinforces the effect of each logic. One example is the relationship between scale- and scope-driven value logics, with the scope effects of customer acquisition and distribution interacting with the scale effects of a large user base—serving heterogeneous needs and enabling cross-selling (Eisenmann et al., 2011; Gawer, 2014). Therefore, depending on the context and the business environment, we may find that different combinations of value logics underly different business models across companies and business areas. For example, study 2 revealed how the business model of Zalando relies on scale-, complementor-, and scope-driven value logics, but it has yet to utilize the interaction-based logic. Besides product reviews, the platform has not included other means of interaction among customers, complementors, or directly between transacting partners. This is different from, e.g., the business model of Airbnb, which relies heavily on the interaction-based logic, with direct communication between hosts and guests being key to building trust (see e.g., Cheng & Jin, 2019), in combination with scale, complementor, and scope logics. Still, they both achieve high business performance. And while the four overarching value logics might be represented across a wide range of platforms, we may find differences within the sub-logics—for example, in how FINN relies heavily on the cross-sided interaction logic in facilitating transactions, but less so on the economies of scale. Economies of scale are, however, vital to Zalando, and the platform model allowed Zalando to grow the company and realize the benefits of scale at low risk and with the help of complementors. Further, Amazon also connects value logics across business models, like when the underlying value logics of Amazon's Marketplace are connected to the underlying value logics of Amazon's Web Services (Ritala et al., 2014). Thus, platform management and governance do not seem to rely on one specific logic of value as represented in the digital platform marketplace literature but instead on combinations of logics specific to different categories of platforms or to the specific characteristics of each platform. Therefore, hybrid platforms (Cusumano, 2020) may be highly complex, with several sources of value being transformed through numerous means of value

delivery and value capture for different beneficiaries, not restricted just to the platform sponsor or high-quality complementors. Thus, this illustrates how a platform-based business model differs from traditional business models in terms of how value logics support the business model configuration of activities, resources, and capabilities. The 12 instances of the four different value logics (Table 31) therefore represent only the first step in uncovering the platform specificity of value creation.

8 Implications

8.1 Theoretical implications

While I have documented four fundamental value logics based in the platform literature and validated them empirically through two studies, the variation and complexity of the examples in Table 31 reveal that the logics are comprehensive beliefs that are difficult to validate and defend with precise theory. The different theoretical foundations are also, to a certain degree, unique to each literature stream and anchor specific aspects of their value logics. Hence, traditional theory provides several lenses for observing and measuring the validity of different value logics, and as such simple mapping between value logics and theoretical lenses cannot be achieved. Value logics may therefore include beliefs about several causalities on which a particular theory may focus and about which it may have found empirical support. One example in this regard is how the RBV supports the validity of the relationship between data, dynamic capabilities, and performance (Wamba et al., 2017). Consequently, using different theories may be necessary when researchers seek to explain why different platform business models—relying on different value logics—succeed (Cennamo, 2021). Following the identification of four lenses in strategy research (Priem, 2007), I added dynamic capabilities to the set and discussed how generic and platform-specific elements of value logics can be theorized using the RBV, the positioning view, transaction cost economics, and the dynamic capabilities and demand-side strategy perspectives.

Transaction cost theory, or transaction cost economics (TCE) (Williamson, 1985), has been deployed to theorize scale-, interaction-, and complementor-driven logics. Among the generic issues discussed using this theory are governance structures and complementarity. However, the platform literature offers new insights in TCE by suggesting that digital platforms establish new governance structures not covered along the traditional market-hybrid-hierarchy dimension (Reimers et al., 2019). For example, digital platforms resemble a public market structure under private exchange with value logics allowing market power as a value capture mechanism to take new forms—and potentially threaten traditional market regulation (Calvano & Polo, 2021). Platforms also enable new forms of complementarity to form in ecosystems of actors not previously discussed in the literature using TCE, i.e., identifying relationships within

ecosystems that do not fit into the classical firm–supplier relationship (Jacobides et al., 2018). Thus, TCE supports the platform specificity of the complementor-driven logics exemplified in Table 31.

The RBV (Barney, 1991; Peteraf, 1993) has clearly been employed to theorize scope-driven logics but also, surprisingly, to support interaction- and complementor-driven logics. Using RBV to support the validity of the complementor-driven logic illustrates how the platform literature broadens the debate on the locus of value creation (Kapoor, 2018) to include (external) complementors and even cross-network resources (Sun & Tse, 2009). How data represent valuable resources in scope-driven logics has been demonstrated in numerous studies (e.g., Hänninen et al., 2019), but it is somewhat surprising that few of them explicitly inform the debate on the characteristics of resources (e.g., VRIO) in the RBV (e.g., Braganza et al., 2017). The reason for this, however, is the complementarity between data as a material resource and data analytics and culture as organizational resources in value creation (Dubey et al., 2019)—an understanding that contributes to general research on material/organizational complementarity in the RBV (Wiengarten et al., 2013).

This leads to literature theorizing scope-driven value logics using both the general theory of organizational capabilities (OC) (Madhok, 1996) as well as the more specific theory of dynamic capabilities (DC) (Teece, 2007). Here, the platform literature on value creation contributes to the identification of unique capabilities of relevance to digital strategic management. Examples include ecosystem orchestration capabilities, also used to theorize complementor-driven logics (Helfat & Raubitschek, 2018), as well as recently developed digital-specific concepts at the intersection between information, marketing, and strategic management research, such as data analytics capabilities (Mikalef et al., 2018) and digital marketing affordances (De Luca et al., 2021). However, dynamic capabilities "underpin not only value creation but also value capture by platform leaders" because integrative capabilities improve ecosystem orchestration and reduce transaction costs (Helfat & Raubitschek, 2018, p. 1391; Teece, 2018b).

While all of the logics in Table 31 share some theoretical underpinnings from the firm positioning perspectives focusing on barriers to competition, generic strategies, and value aggregation (Porter, 1980, 1985), extensive theorizing based on this perspective is found in scale-, interaction-, and complementor-driven logics. Early work on platforms pointed to

network effects as a barrier to entry alternative to those discussed for traditional industries (Katz & Shapiro, 1994) but, of the four sources of value creation in e-business suggested using the firm positioning perspective (Amit & Zott, 2001), "lock-in" is given less attention in current value logics. Instead, the platform literature on value creation seems to combine different elements of the firm positioning perspective as when, for example, Cennamo (2021) elegantly integrated differentiation and scale considerations into a two-dimensional framework that showed that platform value is created through both platform identity and growth under the logics of distinctiveness and scale. This demonstrates how value logics form the basis for theorizing platform-specific extensions of Porter's (1980) generic strategies.

Finally, reflecting the increasing attention to use value in the platform literature on value creation, demand-side perspectives are also gaining attention. This perspective has developed at the intersection of marketing and strategy and, consequently, marketing scholars dominate this part of the platform literature. With long traditions of "means-end-analysis" and modeling-mediated and complex causal chains, there is often a closer correspondence between value logics and the models used to theorize them here than in other perspectives. Examples include the value creation framework of Reinartz et al. (2019) and the value model of Steiner et al. (2016). Such models often include the direct measurement of use value as it is perceived by platform users, particularly customers (e.g., Clauss et al., 2019) relying on well-developed measurement principles and scales. Also, research on value co-creation in this perspective covers diverse conceptualizations of value, offers deep insights into the various actors involved in its creation, and is now also applied in platform contexts (e.g., Perren & Kozinets, 2018; Ramaswamy & Ozcan, 2018b).

Another purpose that value logics may serve is to bridge value creation and value capture by incorporating value delivery. Value logics can be instrumental in examining the relationship between value creation and value capture (Lepak et al., 2007), resolving their tensions (Niesten & Stefan, 2019) and understanding their alignment processes (Sjödin et al., 2020) through explicit attention to value delivery. This consideration also expands Srinivasan's (2021) utility factors of platform value creation by including the quality of interactions and customer empowerment.

My findings also correspond to a discussion of platform (arche)types, boundaries, and business models (Cennamo, 2021; Gawer, 2021; Täuscher & Laudien, 2018), suggesting, for example, that interaction-based value logics potentially enhance the value of transaction-based platforms—a finding that fits with more recent discussions of platform hybridization (Cusumano et al., 2020). This indicates that the hybridization of existing archetypes, like information, innovation, and transaction platforms (Cennamo, 2021), with new archetypes may be better understood through the lens of value logics.

8.2 Managerial implications

The scale-driven value logic not only focuses on the value of size, as in traditional markets with the effects of cost efficiencies and market power, but also illustrates how size increases the effectiveness of a platform market through improved matching of supply and demand, as well as how scale plays a key role in funding platform growth when organic growth is insufficient. This means that incumbents can benefit from this logic when faced with platform entrants by utilizing their existing customer base and financial position to attract complementors and gain a favorable position, even with inferior or similar price and quality levels as platform entrants (Biglaiser et al., 2019; Suarez & Kirtley, 2012). However, platform companies face a strategic choice about whether to prioritize value delivery or value capture, depending on the market situation and the growth of the network. For example, Komplett prioritized value delivery before profitability to fuel growth and build trust in the complementor market—thereby prioritizing the means of value delivery rather than maximizing value capture for the platform.

Also, while the scale-driven value logic is not dependent on network effects, both the literature and the empirical findings demonstrate how network effects fuel the growth of a platform (market) more strongly than in traditional one-sided markets. Thus, platform companies pursue strategies for aggressively attracting complementors (with subsidies, marketing, etc.) to strengthen network effects and possibly gain winner-take-all outcomes (Boudreau & Jeppesen, 2015). However, to attract and retain quality participants on both sides is a complex task (Chakravarty et al., 2014), one which may make it more efficient to focus more strongly on one side of the market (e.g., seller side), especially when indirect network effects are present (Liu et al., 2020). If business managers know the size and potential asymmetry of indirect network effects, they can allocate resources more efficiently (Chu & Manchanda, 2016) to solve the

well-known "chicken-or-egg" dilemma (Altman & Tushman, 2017; Chu & Manchanda, 2016; Hagiu, 2014; Loux et al., 2020; Panico & Cennamo, 2020) and turn the participants of the network into critical resources that bring sustained competitive advantages to the platform (Sun & Tse, 2009). Another strategy is to investigate the interaction between value logics, as the case of Zalando illustrates, where complementor network size served as a means to gain economies of scale at a low cost. Finally, platforms also need to have scalable technology solutions and infrastructure in place (Markoff et al., 2022). Given the efficiencies needed to survive in a competitive platform market, data as a resource is crucial to optimizing supply and demand at scale, and the calculations needed to succeed with such optimizations outreach by far traditional methods of resource planning (Porter, 2001; Ritala et al., 2014).

The complementor-driven value logic focuses on how complementors create value through the content they provide, as well as through the delivery of product variety and product quality. A key difference to suppliers in traditional markets is that complementors (in platform markets) operate with a high degree of autonomy. The complementors engage directly with customers through sales, analytics, and other customer interactions, and they innovate and optimize their offerings in terms of variety, quality, and pricing. However, complementors view marketplace platforms as a distribution strategy, evaluating the platform's performance in relation to other marketing channels. Thus, managing complementors' incentives is critical, not only for making complementors join the platform but also for ensuring their commitment and continuous development throughout the platform's evolution (Panico & Cennamo, 2020). Further, to support the primary value delivery of matching supply and demand, the platform must balance the level of customers and complementors. In line with Gawer and Cusumano (2014), having too many complementors may at some point discourage additional firms from making the investment to join the ecosystem. This indicates that the positive feedback loop in the number of complementors does not continue *ad infinitum* as Cusumano (2012) argued, but rather that the same-side negative effect of added complementors because of increased competition can outweigh the positive indirect effects (Boudreau & Jeppesen, 2015), limiting the growth of the network (Sun & Tse, 2009).

This leads to the scope-driven value logic, and to the importance of resources and capabilities, which, as I have seen, not only improve existing business and operations but can also be used to identify and pursue new business opportunities within and outside existing business

boundaries, leveraging architectures and complementor networks (McIntyre & Srinivasan, 2017). While my overview provided a few selected examples, multiple variations of this logic may be found in, for example, how data analytics supports value creation through the curation of customer relationships, with an impact on customer loyalty (Clauss et al., 2019), or how data enable the identification of profitable market segments suitable for differentiation. This has implications for how platforms make entry into complementors' space to either increase their market share of own complements, drive growth in the entire market (Gawer & Henderson, 2007; Toh & Agarwal, 2022; Zhu & Liu, 2018), or determine how platform-specific practices make it possible to provide more comprehensive solutions that benefit customers (Eloranta & Turunen, 2016; Perks et al., 2017). While these examples are typically reflected in digital business models, they are not platform-specific logics. However, the scope-driven logic becomes platform-specific when resources and capabilities are combined and utilized across the ecosystem. For example, in the case of data analytics, the value delivery of matching supply and demand is strengthened compared to traditional businesses because platform companies convert traditional third-party data (from their ecosystem) into first-party data for the platform (Rangaswamy et al., 2020). In other words, the volume of data is difficult to match in a traditional business with a value chain configuration.

The interaction-driven value logic builds on two-way interpersonal communications, which are fundamental to information platforms, and social media platforms in particular. Given this importance, I therefore argue for an explicit focus on these forms of interactions, which are different from the content being provided by the platform actors that are part of the complementor-driven value logic. Even though my thesis conceptually relates to the market intermediary stream, I found that platforms more or less consciously include a variety of interaction elements that create value for the platform ecosystem, such as the more recent discussion between customers about product listings on Amazon, where the functionality of reviews and ratings has been expanded with "Customer Q&As." Here, customers engage in discussions with others, providing feedback on the quality or discussing features or functionalities of a product, without any required participation by the complementor. Another example is the use of live chat, as seen in the case example of Zalando. For example, Sun et al. (2021) found that live chat drive conversion rates on the Taobao marketplace in China. With a current industry average for e-commerce of around 2%, only slightly increasing the conversion

rate[32] will have a substantial impact (Ogonowski, 2020). This means that the interaction elements enhance the value of transaction-based platforms as well, a finding that fits with the recent discussion of platform hybridization, cited above (Cusumano et al., 2020). Therefore, platform companies must consider the role of interaction in creating value to a greater extent and investigate how it may strengthen the platform's position. For example, in the absence of independent product reviews, complementors should recruit customers to participate in customer panels, write stories for the complementors, and share their honest opinions on product features, benefits, and weaknesses, which complementors can then employ in their own marketing activities. Customers also frequently share content (e.g., pictures, video) on social media that could easily be embedded within a transaction-based platform ecosystem. Not only would these activities support the value delivery of trust and strengthen customer loyalty, but they could also have effects on word of mouth, fueling additional platform growth.

Similarly, I also observed how information-based platforms have started to include transaction-based elements (buy/sell) to enhance their value. For example, Instagram has introduced transactions on their platform through Instagram Shopping, while WeChat, which started out as a messaging app, now center its business model around e-commerce and has its own payment system, along with a range of different services, like ride hailing and restaurant bookings, integrated in the platform. These observations suggest that the characteristics of the different platform types are changing and that the differences between information, innovation, and transaction platforms are becoming blurry, especially in highly integrated platform ecosystems.

[32] An e-commerce conversion rate refers to the number of customers who visit the website (platform) and make a purchase within a specified time period.

9 Limitations and future research opportunities

This thesis has some methodological and conceptual limitations, but carefully developed rationales and balanced considerations between the advantages and disadvantages of different approaches mitigated most of these limitations. For example, in study 1, I experimented considerably with alternative search terms and selection criteria to ensure a broad representation of previously identified platform research (e.g., Gawer & Cusumano, 2014). Because numerous terms were used to represent relevant elements of value, I avoided using *a priori* conceptualizations of value, such as benefits, advantages, outcomes, resources, revenue models, appropriation, capture, and value itself, in the search terms and relied on manual inspection and content analysis to identify relevant contributions. With a heterogeneous literature base, matching past subject-oriented reviews with similar criteria (Rietveld & Schilling, 2021, p. 23), I relied on conceptual themes reflecting the different dimensions of value rather than theoretical foundations to integrate diverse contributions from numerous research streams. Because my point of departure was the conceptual theme of value, sets of more consistent findings could be integrated across these streams through the categorization of value conceptualizations and value logics. Nevertheless, the findings raise several concerns that require further elaboration while also offering directions for future platform research on value creation.

First, following the scope of this thesis, I set the conceptual boundaries to focus on transactional platforms, and marketplace platforms specifically. Accordingly, this excluded a wide range of platform types, such as sharing platforms, content platforms, and social media platforms, from the initial search (Figure 2). Allowing for a wider set of platform types might have provided a different, or a more detailed, view of the different value logics supporting a platform's business model by, for example, adding more richness in the interaction-driven value logic, about which the findings suggest that such interactions foremost take place on other platform types, such as social media platforms. However, the boundaries were carefully chosen to reduce the complexity of the study and to gain deeper insights into the underlying structures and beliefs governing value creation within marketplace platforms, for which I ensured that highly cited works were included. Future studies may, however, include a wider set of platform types and investigate whether the proposed value logics and the structure of value creation also apply to other platform types, as well as how they can be extended to apply to a wider range of platforms.

Second, despite the heterogeneity of the platform literature, the way I used conceptualizations of value to integrate my findings revealed additional research gaps that also offer directions for future platform research on value creation. For example, descriptive analysis of the literature revealed that the least integrated stream of platform research on value creation was found in the marketing field. This field is traditionally the one that most extensively covers consumer benefits and end user value but seems to have received limited interest in the platform literature (Hänninen, 2020). This shortcoming is further substantiated by the low frequency of consumer, customer, and end user value elements identified in the literature. I therefore urge future studies to look across literature streams, recognize the differences in value conceptualizations, and clarify their position by, for example, recognizing the limitations of focusing on value capture for the platform company.

Also, the variety of value elements followed different streams of platform research, with most streams being occupied with a limited set of value elements. This often reflects a particular perspective of a specific actor in the platform ecosystem. Examples include value capture mechanisms of platform owners (e.g., Gawer & Henderson, 2007) and complementors (Zhu & Liu, 2018), but few have tried integrating diverse elements of value at different levels into more comprehensive descriptive models. Surprisingly, there also seems to be a lack of research on some well-known and often mentioned value elements, such as reduced transaction costs for the platform, with the exception of Rangaswamy et al. (2020), who considered the reduction of matchmaking costs, increasing the platform's efficiency. However, the complexity of value elements, such as reduced transactions costs, may serve as (1) a source of value to society, (2) a means of value to consumers, and (3) a mechanism for capturing value for complementors. This exemplifies how we need more research on the role of value elements in different contexts, on value considerations from the perspective of different ecosystem actors, and on relationships between value elements and value dimensions.

Third, the empirical studies (study 2 and 3) have several methodological limitations that may be addressed in future studies. One issue is how the conceptual framework of value logics was validated through a multiple-case study. While a different selection of cases may have resulted in different results, a criterion strategy was applied to ensure consistency among the selected cases, and the number of cases was in line with how the literature determines a satisfactory number of cases in a replication logic in a multiple-case design (Yin, 2018, p. 55). Also, as the

purpose was to validate a framework with a deductive approach rather than to develop the framework inductively, cases could be selected on a theoretical basis to ensure rich information is generated that will answer relevant research questions (Patton, 2002). Also, the use of interview data in both studies 2 and 3 had clear limitations, with one issue relating to the number of informants, but another pertaining to how the findings may have been affected by informant bias, for example in how the role and position in a company may affect the informant's perception (e.g., as demonstrated with conflicting views on selected matters in the case of Komplett). Another issue relates to the use of focus groups, in which socially acceptable opinions tend to emerge, and dominant participants may affect the research (Smithson, 2000). Therefore, both the selection process and the moderator strategy were planned to allow for the generation of rich individual-level data, isolating each participant's view rather than aiming for a collective understanding or agreement about the proposed relationships but still maintaining the benefits of group dynamics. Also, a triangulation strategy using both interview data and secondary data was applied to reduce informant and interviewer bias, along with the application of empirical evidence from existing platform literature in the interpretation of the findings. Finally, both the cases and the informants were based in Western cultural markets, where there is high technical literacy, trust in governments, and secure payment solutions. Future research should therefore explore the value logics in other cultural contexts and within a wider set of platform types to strengthen the validity of the value logics and enrich the framework with additional nuances and examples.

Fifth, the customer-driven value logic was an attempt to identify value that, similar to complementors, is created by one side of the platform—namely the customers. However, given limited support in the literature and the empirical findings highlighting the content of reviews and ratings, which assumed the form of interactions, this logic was embedded in the interaction-based value logic. In other contexts, and on other platform types, customer-provided content may take on different forms. For example, when customers conduct product tests, product comparisons, and unboxing videos, and then publish them on a YouTube channel on their own behalf, this content may be disconnected from the transaction itself, with the content-providing customers not taking part in any transaction nor gaining any commissions or rewards from their recommendations. In other content platforms, like Booking.com, reward mechanisms are already in place, with frequent travelers receiving monetary rewards for writing articles or posts

and promoting travel destinations. Such examples may provide arguments for separating the customer-driven content into a separate value logic. However, more research is needed to investigate whether similar concepts exist and could also be relevant for marketplace platforms.

Sixth, while the thesis concludes with a validated framework of value logics, a possible future research opportunity would be to empirically measure the effects or strength of each logic, or a combination of logics. As the value conceptualizations and causalities build on well-established concepts in the literature (e.g., size, price, trust, convenience, efficiency), validated measurement scales are available and suitable for, e.g., structural equation modeling, through which the presence of value logics can be explored across different platform contexts with different moderating factors (e.g., platform type, transaction vs. hybrid strategy, pure intermediary or wholesale model).

Finally, the results from this thesis can also provide guidance for a wide range of different research opportunities that warrant closer examination:

- My empirical studies of the value logics underlying the business models of platform companies confirmed my observation from the literature that these models are often determined by combinations of value logics, and that some value logics are mutually reinforcing. Thus, further research should focus on the complexity of platform-based business models when explaining how they differ from traditional business models.
- More research is also needed on complementor strategies in platform markets. While a few studies have addressed this issue from a competition perspective (e.g., Edelman, 2014; Wichmann et al., 2022), more research is needed on the digital capabilities necessary to onboard digital platforms and also the capabilities needed to succeed over time, integrating one's own operations and efficiencies with a platform distribution strategy.
- Similarly, additional research is needed on platform strategies necessary to manage deficiencies in value logics. For example, if a platform has scale-driven but not interaction-driven value logics, one question would be how to proceed to build and implement additional value logics, and the necessary capabilities. In that sense, the entrepreneurship literature discusses the concept of "entrepreneurial bricolage," which might serve as a useful starting point (Yu et al., 2019).

- Further, while the extant literature focuses on the role of the platform orchestrator, less emphasis has been placed on the remaining actors in a platform ecosystem. While study 3 included the customer and complementor perspectives on value logics, we still do not have the perspective of other value-creating partners, such as third-party service providers (IT/technology, distribution/logistics, payment providers), which might add valuable insights to the proposed value logics.
- Also, while little evidence was found regarding one-sided complementor interactions, one fruitful avenue of future investigation would be to investigate cooperation between complementors and the potential for mutual value creation by sharing data in a platform ecosystem. This might be applicable in situations of joint value delivery or in connecting value-adding services covering a larger part of the customer journey.
- Also, excess capacity as I defined it in the value logic, with customers benefiting from the platform company's diversification into new business areas outside the core of the platform, was not identified in my sample of informants due to the scope of the interview protocol and the focus on the relationship with the focal platform. Future research could therefore investigate the effects of diversification from a demand-side perspective.
- More research is also needed to nuance the distinction between a professional complementor and individual customers acting as complementors (e.g., in C2C platform markets such as Taobao) and how value logics might differ for these different kinds of complementors.
- Another research opportunity would be to investigate single versus multihoming strategies (Bakos & Halaburda, 2020; Landsman & Stremersch, 2011) in light of value logics and discuss their implications for platform participation.
- Also, this thesis barely touched upon governance issues and market regulations, which occupy an increasingly large part of the platform literature (Gawer, 2022; Jacobides et al., 2018; Sokol & Van Alstyne, 2021). With regulations such as GDPR,[33] and the EU's

[33] The General Data Protection Regulation (GDPR) is a regulation on information privacy in the EU and the European Economic Area. The California Consumer Privacy Act (CCPA) has many similarities with the GDPR. Source: GDPR.EU, https://gdpr.eu/

Digital Services Act, value logics could also be discussed in the context of a wider ecosystem or societal perspective.

- Finally, the focus of this thesis was on value creation in digital marketplace platforms. However, as the failure rate of platforms is high (Yoffie et al., 2019), one potential avenue of further research would be to investigate "value destruction." Although I touched upon negative feedback loops from competition and use value, this and the concept of value destruction warrant a closer investigation.

10 Conclusion

The overall research topic of this dissertation is to understand value creation in digital marketplace platforms from a business model perspective. While existing research mainly focuses on the focal platform and platform efficiencies (e.g., McIntyre et al., 2021), this thesis provides a different perspective and a broader understanding of value creation by also including customers and complementors in the equation. This contributes to an as of yet small part of the platform literature (e.g., Rangaswamy et al., 2020), and responds to the call for a better understanding of value creation mechanisms in platform business models (Cusumano, 2020; Hänninen, 2020; McIntyre & Srinivasan, 2017; McIntyre et al., 2021).

The core concept of this dissertation has been the development of a framework, that I term "value logics," which describes platform participants' underlying beliefs about how platforms create value. This includes how the interplay of resources and capabilities affects value creation and delivery, as well as how value is captured through efficiency measures, market power, and differentiation advantages. Thus, the framework illustrates how a platform-based business model differs from traditional business models in terms of how value logics support the business model configuration of activities, resources, and capabilities, and provides a more unified view of value creation beyond firm boundaries.

The 12 instances of the four different value logics (the scale-driven value logic, the complementor-driven value logic, the scope-driven value logic, and the interaction-driven value logic) represent the first step in uncovering the platform specificity of value creation, and as I argue, platform business models include the sharing of value logics among the different value-creating partners of the ecosystem, not just the focal platform itself. In other words, this dissertation introduces a concept—value logics— that not only accounts for all platform users, but also advances our knowledge of different paths to achieving sustainable competitive advantage of platforms.

References

Abdelkafi, N., Raasch, C., Roth, A., & Srinivasan, R. (2019). Multi-Sided Platforms. *Electronic Markets*, *29*(4), 553-559. https://doi.org/10.1007/s12525-019-00385-4

Adner, R. (2017). Ecosystem as Structure: An Actionable Construct for Strategy. *Journal of Management*, *43*(1), 39-58. https://doi.org/10.1177/0149206316678451

Adner, R., & Helfat, C. E. (2003). Corporate Effects and Dynamic Managerial Capabilities. *Strategic Management Journal*, *24*(10), 1011-1025. https://doi.org/10.1002/smj.331

Adner, R., & Snow, D. C. (2010a). Boldr: A New Strategy for Old Technologies. *Harvard Business Review*, *88*(3), 76-81.

Adner, R., & Snow, D. C. (2010b). Old Technology Responses to New Technology Threats: Demand Heterogeneity and Technology Retreats. *Industrial and Corporate Change*, *19*(5), 1655-1675.

Afuah, A. (2013). Are Network Effects Really All About Size? The Role of Structure and Conduct. *Strategic Management Journal*, *34*(3), 257-273.

Aguinis, H., Ramani, R. S., & Alabduljader, N. (2018). What You See Is What You Get? Enhancing Methodological Transparency in Management Research. *Academy of Management Annals*, *12*(1), 83-110.

Alam, I. (2002). An Exploratory Investigation of User Involvement in New Service Development. *Journal of the Academy of Marketing Science*, *30*(3), 250-261. https://doi.org/10.1177/0092070302303006

Alt, R., & Klein, S. (2011). Twenty Years of Electronic Markets Research - Looking Backwards Towards the Future. *Electronic Markets*, *21*(1), 41-51. https://doi.org/10.1007/s12525-011-0057-z

Alt, R., & Zimmermann, H. D. (2019). Electronic Markets on Platform Competition. *Electronic Markets*, *29*(2), 143-149. https://doi.org/10.1007/s12525-019-00353-y

Altıntaş, M. H., Kılıç, S., & Akhan, C. E. (2019). The Transformation of the E-Tailing Field: A Bibliometric Analysis. *International Journal of Retail and Distribution Management*, *48*(2), 152-168. https://doi.org/10.1108/IJRDM-10-2018-0232

Altman, E. J., Nagle, F., & Tushman, M. L. (2022). The Translucent Hand of Managed Ecosystems: Engaging Communities for Value Creation and Capture. *Academy of Management Annals*, *16*(1), 70-101. https://doi.org/10.5465/annals.2020.0244

Altman, E. J., & Tushman, M. L. (2017). Platforms, Open/User Innovation, and Ecosystems: A Strategic Leadership Perspective. *Advances in Strategic Management*, *37*, 177-207. https://doi.org/10.1108/S0742-332220170000037007

American Marketing Association. (2017). *Definitions of Marketing*. https://www.ama.org/the-definition-of-marketing-what-is-marketing/

Amit, R., & Zott, C. (2001). Value Creation in E-Business. *Strategic Management Journal*, *22*(6-7), 493-520. https://doi.org/10.1002/smj.187

Argyris, C., & Schon, D. A. (1974). *Theory in Practice: Increasing Professional Effectiveness*. Jossey-Bass.

Aria, M., & Cuccurullo, C. (2017). Bibliometrix: An R-Tool for Comprehensive Science Mapping Analysis. *Journal of Informetrics*, *11*(4), 959-975. https://doi.org/gcpwjf

Armstrong, M. (2006). Competition in Two‐Sided Markets. *The RAND Journal of Economics*, *37*(3), 668-691.

Aversa, P., Haefliger, S., Hueller, F., & Reza, D. G. (2021). Customer Complementarity in the Digital Space: Exploring Amazon's Business Model Diversification. *Long Range Planning*, *54*(5), 101985. https://doi.org/10.1016/j.lrp.2020.101985

Baden-Fuller, C., & Morgan, M. S. (2010). Business Models as Models. *Long Range Planning*, *43*(2), 156-171. https://doi.org/10.1016/j.lrp.2010.02.005

Bakos, Y., & Halaburda, H. (2020). Platform Competition with Multihoming on Both Sides: Subsidize or Not? *Management Science*, *66*(12), 5599-5607. https://doi.org/10.1287/mnsc.2020.3636

Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, *17*(1), 99-120. https://doi.org/10.1177/014920639101700108

Basaure, A., Vesselkov, A., & Töyli, J. (2020). Internet of Things (Iot) Platform Competition: Consumer Switching Versus Provider Multihoming. *Technovation*, *90-91*, Article 102101. https://doi.org/10.1016/j.technovation.2019.102101

Bazarhanova, A., Yli-Huumo, J., & Smolander, K. (2019). From Platform Dominance to Weakened Ownership: How External Regulation Changed Finnish E-Identification. *Electronic Markets*. https://doi.org/10.1007/s12525-019-00331-4

Belleflamme, P., & Peitz, M. (2019). Managing Competition on a Two-Sided Platform. *Journal of Economics and Management Strategy*, *28*(1), 5-22. https://doi.org/gg279g

Berman, S., Davidson, S., Ikeda, K., & Marshall, A. (2018). Navigating Disruption with Ecosystems, Partners and Platforms. *Strategy and Leadership*, *46*(5), 26-35. https://doi.org/10.1108/SL-07-2018-0064

Besharov, M. L., & Smith, W. K. (2014). Multiple Institutional Logics in Organizations: Explaining Their Varied Nature and Implications. *Academy of Management Review*, *39*(3), 364-381. https://doi.org/10.5465/amr.2011.0431

Bettis, R. A., & Prahalad, C. K. (1995). The Dominant Logic: Retrospective and Extension. *Strategic Management Journal*, *16*(1), 5-14.

Biggart, N. W. (1991). Explaining Asian Economic Organization: Toward a Weberian Institutional Perspective. *Theory and Society*, *20*, 199-232.

Biglaiser, G., Calvano, E., & Crémer, J. (2019). Incumbency Advantage and Its Value. *Journal of Economics and Management Strategy*, *28*(1), 41-48. https://doi.org/gg29hv

Blondel, F., & Edouard, S. (2015). Entrance into a Platform-Dominated Market: Virtue of an Open Strategy on the Numerical Computation Market. *Canadian Journal of Administrative Sciences*, *32*(3), 177-188. https://doi.org/10.1002/cjas.1320

Boudreau, K., & Lakhani, K. (2009). How to Manage Outside Innovation. *MIT Sloan Management Review*, *50*(4), 69.

Boudreau, K. J. (2017). Platform Boundary Choices & Governance: Opening-up While Still Coordinating and Orchestrating. In *Advances in Strategic Management* (Vol. 37, pp. 227-297). Emerald Group Publishing Ltd. https://doi.org/10.1108/S0742-332220170000037009

Boudreau, K. J., & Jeppesen, L. B. (2015). Unpaid Crowd Complementors: The Platform Network Effect Mirage. *Strategic Management Journal*, *36*(12), 1761-1777. https://doi.org/10.1002/smj.2324

Bowman, C., & Ambrosini, V. (2000). Value Creation Versus Value Capture: Towards a Coherent Definition of Value in Strategy. *British Journal of Management*, *11*(1), 1-15. https://doi.org/10.1111/1467-8551.00147

Bowman, C., & Ambrosini, V. (2001). "Value" in the Resource-Based View of the Firm: A Contribution to the Debate. *Academy of Management Review*, *26*(4), 501-502.

Braganza, A., Brooks, L., Nepelski, D., Ali, M., & Moro, R. (2017). Resource Management in Big Data Initiatives: Processes and Dynamic Capabilities. *Journal of Business Research*, *70*, 328-337. https://doi.org/10.1016/j.jbusres.2016.08.006

Braune, E., & Dana, L.-P. (2022). Digital Entrepreneurship: Some Features of New Social Interactions. *Canadian Journal of Administrative Sciences / Revue Canadienne des Sciences de l'Administration*, *39*(3), 237-243. https://doi.org/10.1002/cjas.1653

Brennecke, J. (2020). Dissonant Ties in Intraorganizational Networks: Why Individuals Seek Problem-Solving Assistance from Difficult Colleagues. *Academy of Management Journal*, *63*(3), 743-778. https://doi.org/10.5465/amj.2017.0399

Bresnahan, T. F., & Greenstein, S. (1999). Technological Competition and the Structure of the Computer Industry. *The Journal of Industrial Economics*, *47*(1), 1-40.

Broekhuizen, T. L. J., Emrich, O., Gijsenberg, M. J., Broekhuis, M., Donkers, B., & Sloot, L. M. (2019). Digital Platform Openness: Drivers, Dimensions and Outcomes. *Journal of Business Research*. https://doi.org/10.1016/j.jbusres.2019.07.001

Brosstad, C. (2021). Finn.no og Plattformøkonomi (No. 81) [Audio Podcast]. In *Technology and People*. https://podcasts.apple.com/no/podcast/81-finn-no-og-plattform%C3%B8konomi/id1448709858?i=1000538287449

Bundy, J., Shropshire, C., & Buchholtz, A. K. (2013). Strategic Cognition and Issue Salience: Toward an Explanation of Firm Responsiveness to Stakeholder Concerns. *Academy of Management Review, 38*(3), 352-376. https://doi.org/10.5465/amr.2011.0179

Burr, W. R. (1973). *Theory Construction and the Sociology of the Family*. New York: Wiley.

Cabral, L. (2019). Towards a Theory of Platform Dynamics. *Journal of Economics and Management Strategy*, *28*(1), 60-72. https://doi.org/10.1111/jems.12312

Cacciotti, G., & Hayton, J. C. (2015). Fear and Entrepreneurship: A Review and Research Agenda. *International Journal of Management Reviews*, *17*(2), 165-190. https://doi.org/10.1111/ijmr.12052

Caillaud, B., & Jullien, B. (2003). Chicken & Egg: Competition among Intermediation Service Providers. *The RAND Journal of Economics*, *34*(2), 309-328. https://doi.org/10.2307/1593720

Caldieraro, F., Zhang, J. Z., Cunha, M., & Shulman, J. D. (2018). Strategic Information Transmission in Peer-to-Peer Lending Markets. *Journal of Marketing*, *82*(2), 42-63. https://doi.org/10.1509/jm.16.0113

Calvano, E., & Polo, M. (2021). Market Power, Competition and Innovation in Digital Markets: A Survey. *Information Economics and Policy*, *54*, 100853. https://doi.org/10.1016/j.infoecopol.2020.100853

Campbell, D. T. (1975). Iii."Degrees of Freedom" and the Case Study. *Comparative Political Studies*, *8*(2), 178-193.

Casadesus-Masanell, R., & Campbell, N. (2019). Platform Competition: Betfair and the Uk Market for Sports Betting. *Journal of Economics and Management Strategy*, *28*(1), 29-40. https://doi.org/10.1111/jems.12310

Casadesus-Masanell, R., & Hałaburda, H. (2014). When Does a Platform Create Value by Limiting Choice? *Journal of Economics and Management Strategy*, *23*(2), 259-293. https://doi.org/10.1111/jems.12052

Casadesus-Masanell, R., & Llanes, G. (2015). Investment Incentives in Open-Source and Proprietary Two-Sided Platforms. *Journal of Economics and Management Strategy*, *24*(2), 306-324. https://doi.org/10.1111/jems.12089

Casadesus-Masanell, R., & Ricart, J. E. (2010). From Strategy to Business Models and onto Tactics. *Long Range Planning*, *43*(2-3), 195-215.

Casadesus-Masanell, R., & Zhu, F. (2013). Business Model Innovation and Competitive Imitation: The Case of Sponsor-Based Business Models. *Strategic Management Journal*, *34*(4), 464-482.

Casey, T. R., & Töyli, J. (2012). Dynamics of Two-Sided Platform Success and Failure: An Analysis of Public Wireless Local Area Access. *Technovation*, *32*(12), 703-716. https://doi.org/10.1016/j.technovation.2012.08.003

Ceipek, R., Hautz, J., Mayer, M. C. J., & Matzler, K. (2019). Technological Diversification: A Systematic Review of Antecedents, Outcomes and Moderating Effects. *International Journal of Management Reviews*, *21*(4), 466-497. https://doi.org/10.1111/ijmr.12205

Cenamor, J., Parida, V., & Wincent, J. (2019). How Entrepreneurial Smes Compete through Digital Platforms: The Roles of Digital Platform Capability, Network Capability and Ambidexterity. *Journal of Business Research*, *100*, 196-206. https://doi.org/10.1016/j.jbusres.2019.03.035

Cenamor, J., Usero, B., & Fernández, Z. (2013). The Role of Complementary Products on Platform Adoption: Evidence from the Video Console Market. *Technovation*, *33*(12), 405-416. https://doi.org/10.1016/j.technovation.2013.06.007

Cennamo, C. (2018). Building the Value of Next-Generation Platforms: The Paradox of Diminishing Returns. *Journal of Management*, *44*(8), 3038-3069. https://doi.org/10.1177/0149206316658350

Cennamo, C. (2021). Competing in Digital Markets: A Platform-Based Perspective. *Academy of Management Perspectives*, *35*(2), 265-291. https://doi.org/10.5465/amp.2016.0048

Cennamo, C., & Santalo, J. (2013). Platform Competition: Strategic Trade-Offs in Platform Markets. *Strategic Management Journal*, *34*(11), 1331-1350. https://doi.org/10.1002/smj.2066

Chakravarty, A., Kumar, A., & Grewal, R. (2014). Customer Orientation Structure for Internet-Based Business-to-Business Platform Firms. *Journal of Marketing*, *78*(5), 1-23. https://doi.org/10.1509/jm.12.0442

Chan, H., Yang, M. X., & Zeng, K. J. (2022). Bolstering Ratings and Reviews Systems on Multi-Sided Platforms: A Co-Creation Perspective. *Journal of Business Research*, *139*, 208-217. https://doi.org/10.1016/j.jbusres.2021.09.052

Cheng, M., & Jin, X. (2019). What Do Airbnb Users Care About? An Analysis of Online Review Comments. *International Journal of Hospitality Management*, *76*, 58-70. https://doi.org/https://doi.org/10.1016/j.ijhm.2018.04.004

Chesbrough, H., Rosenbloom, R. S. J. I., & change, c. (2002). The Role of the Business Model in Capturing Value from Innovation: Evidence from Xerox Corporation's Technology Spin-Off Companies. *11*(3), 529-555.

Chesbrough, H. W. (2011). Bringing Open Innovation to Services. *MIT Sloan Management Review*, *52*(2), 85.

Chi, Y., Qing, P., Jin, Y. J., Yu, J., Dong, M. C., & Huang, L. (2022). Competition or Spillover? Effects of Platform-Owner Entry on Provider Commitment. *Journal of Business Research*, *144*, 627-636. https://doi.org/10.1016/j.jbusres.2021.12.073

Choi, J. P., & Zennyo, Y. (2019). Platform Market Competition with Endogenous Side Decisions. *Journal of Economics and Management Strategy*, *28*(1), 73-88. https://doi.org/10.1111/jems.12305

Choi, K., Ryu, S., & Cho, D. (2019). When a Loss Becomes a Gain: Different Effects of Substitute Versus Complementary Loss Leaders in a Multi-Sided Platform. *Electronic Markets*, *29*(4), 681-691. https://doi.org/10.1007/s12525-019-00349-8

Chu, J., & Manchanda, P. (2016). Quantifying Cross and Direct Network Effects in Online Consumer-to-Consumer Platforms. *Marketing Science*, *35*(6), 870-893. https://doi.org/10.1287/mksc.2016.0976

Ciborra, C. U. (1996). The Platform Organization: Recombining Strategies, Structures, and Surprises. *Organization Science*, *7*(2), 103-118.

Clauss, T., Harengel, P., & Hock, M. (2019). The Perception of Value of Platform-Based Business Models in the Sharing Economy: Determining the Drivers of User Loyalty. *Review of Managerial Science*, *13*(3), 605-634. https://doi.org/10.1007/s11846-018-0313-0

Collins, J. (2001). *Good to Great - Why Some Companies Make the Leap and Others Don't*. HarperCollins Publishers.

CompaniesMarketCap. (2024). *Largest Companies by Market Cap* https://companiesmarketcap.com/

Cooke, P., De Laurentis, C., Kaiser, R., & Liecke, M. (2010). Comparative Analysis of Selected European Biotechnology Platforms. In P. Cooke, C. De Laurentis, S. MacNeill, & C. Collinge (Eds.), *Platforms of Innovation*. Edward Elgar.

Creswell, J. W. (2003). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (2nd ed. ed.). Sage Publications.

Creswell, J. W., & Poth, C. N. (2018). *Qualitative Inquiry & Research Design: Choosing among Five Approaches* (4th ed.). SAGE Publications.

Crilly, D., & Sloan, P. (2012). Enterprise Logic: Explaining Corporate Attention to Stakeholders from the 'inside-Out'. *Strategic Management Journal*, *33*(10), 1174-1193. https://doi.org/10.1002/smj.1964

Crittenden, A. B., Crittenden, V. L., & Crittenden, W. F. (2017). Industry Transformation Via Channel Disruption. *Journal of Marketing Channels*, *24*(1-2), 13-26. https://doi.org/10.1080/1046669X.2017.1346974

Cunningham, J. L., Sonday, L., & Ashford, S. J. (2023). Do I Dare? The Psychodynamics of Anticipated Image risk, Leader-Identity Endorsement, and Leader emergence. *Academy of Management Journal*, *66*(2), 374-401. https://doi.org/10.5465/amj.2018.1258

Curchod, C., Patriotta, G., Cohen, L., & Neysen, N. (2020). Working for an Algorithm: Power Asymmetries and Agency in Online Work Settings. *Administrative Science Quarterly*, *65*(3), 644-676. https://doi.org/10.1177/0001839219867024

Cusumano, M. A. (2012). Platforms Versus Products: Observations from the Literature and History. In S. J. Kahl, B. S. Silverman, & M. A. Cusumano (Eds.), *Advances in Strategic Management* (Vol. 29, pp. 35-67). https://doi.org/10.1108/S0742-3322(2012)0000029006

Cusumano, M. A. (2020). Guidepost: The Evolution of Research on Industry Platforms. *Academy of Management Discoveries*, *August 2020*. https://doi.org/10.5465/amd.2020.0091

Cusumano, M. A., & Gawer, A. (2002). The Elements of Platform Leadership. *MIT Sloan Management Review*, *43*(3), 51-58.

Cusumano, M. A., Gawer, A., & Yoffie, D. B. (2019). *The Business of Platforms: Strategy in the Age of Digital Competition, Innovation, and Power*. Harper Business New York.

Cusumano, M. A., Nobeoka, K., & Kentaro, N. (1998). *Thinking Beyond Lean: How Multi-Project Management Is Transforming Product Development at Toyota and Other Companies*. Simon and Schuster.

Cusumano, M. A., Yoffie, D. B., & Gawer, A. (2020). The Future of Platforms. *MIT Sloan Management Review*, *61*(3), 46-54.

Cutolo, D., Hargadon, A., & Kenney, M. (2021). Competing on Platforms. *MIT Sloan Management Review*.

Dahlander, L., & Gann, D. M. (2010). How Open Is Innovation? *Research Policy*, *39*(6), 699-709. https://doi.org/10.1016/j.respol.2010.01.013

De Luca, L. M., Herhausen, D., Troilo, G., & Rossi, A. (2021). How and When Do Big Data Investments Pay Off? The Role of Marketing Affordances and Service Innovation. *Journal of the Academy of Marketing Science*, *49*(4), 790-810. https://doi.org/10.1007/s11747-020-00739-x

Dell'Era, C., Trabucchi, D., & Magistretti, S. (2021). Exploiting Incumbents' Potentialities: From Linear Value Chains to Multisided Platforms. *Creativity and Innovation Management, 30*(1), 31-46. https://doi.org/10.1111/caim.12413

Denning, S. (2021). Mastering the Challenge of Business Ecosystems. *Strategy & Leadership, 49*(4), 9-15. https://doi.org/10.1108/SL-06-2021-0057

Denyer, D., & Tranfield, D. (2009). Producing a Systematic Review. In *The Sage Handbook of Organizational Research Methods.* (pp. 671-689). Sage Publications.

Doganova, L., & Eyquem-Renault, M. (2009). What Do Business Models Do?: Innovation Devices in Technology Entrepreneurship. *Research Policy*, *38*(10), 1559-1570. https://doi.org/10.1016/j.respol.2009.08.002

Dubey, R., Gunasekaran, A., Childe, S. J., Blome, C., & Papadopoulos, T. (2019). Big Data and Predictive Analytics and Manufacturing Performance: Integrating Institutional Theory, Resource-Based View and Big Data Culture. *British Journal of Management*, *30*(2), 341-361. https://doi.org/10.1111/1467-8551.12355

Dyer, J., Kryscynski, D., Law, C., & Morris, S. (2021). Who Should Become a Business School Associate Dean? Individual Performance and Taking on Firm-Specific Roles. *Academy of Management Journal*, *64*(5), 1605-1624. https://doi.org/10.5465/amj.2019.0555

Eckhardt, G. M., Houston, M. B., Jiang, B., Lamberton, C., Rindfleisch, A., & Zervas, G. (2019). Marketing in the Sharing Economy. *Journal of Marketing*, *83*(5), 5-27. https://doi.org/10.1177/0022242919861929

Eckhardt, J. T., Ciuchta, M. P., & Carpenter, M. (2018). Open Innovation, Information, and Entrepreneurship within Platform Ecosystems. *Strategic Entrepreneurship Journal*, *12*(3), 369-391. https://doi.org/10.1002/sej.1298

Edelman, B. (2014). Mastering the Intermediaries: Strategies for Dealing with the Likes of Google, Amazon, and Kayak. *Harvard Business Review*, *92*(6), 86-92.

Eggert, A., Ulaga, W., Frow, P., & Payne, A. (2018). Conceptualizing and Communicating Value in Business Markets: From Value in Exchange to Value in Use. *Industrial Marketing Management*, *69*, 80-90. https://doi.org/10.1016/j.indmarman.2018.01.018

Eisenhardt, K. M. (1989). Building Theories from Case Study Research. *Academy of Management Review*, *14*(4), 532-550. https://doi.org/10.5465/amr.1989.4308385

Eisenhardt, K. M., & Graebner, M. E. (2007). Theory Building from Cases: Opportunities and Challenges. *Academy of Management Journal*, *50*(1), 25-32. https://doi.org/10.5465/amj.2007.24160888

Eisenmann, T., Parker, G., & Van Alstyne, M. (2011). Platform Envelopment. *Strategic Management Journal*, *32*(12), 1270-1285. https://doi.org/10.1002/smj.935

Eisenmann, T., Parker, G., & Van Alstyne, M. W. (2006). Strategies for Two-Sided Markets. *Harvard Business Review*, *84*(10), 92-101+149.

Eisenmann, T. R. (2008). Managing Proprietary and Shared Platforms. *California Management Review*, *50*(4), 31-53. https://doi.org/10.2307/41166455

Eloranta, V., & Turunen, T. (2016). Platforms in Service-Driven Manufacturing: Leveraging Complexity by Connecting, Sharing, and Integrating. *Industrial Marketing Management*, *55*, 178-186. https://doi.org/10.1016/j.indmarman.2015.10.003

Enders, A., Hungenberg, H., Denker, H.-P., & Mauch, S. (2008). The Long Tail of Social Networking.: Revenue Models of Social Networking Sites. *European Management Journal*, *26*(3), 199-211. https://doi.org/10.1016/j.emj.2008.02.002

Etro, F. (2021). Product Selection in Online Marketplaces. *Journal of Economics & Management Strategy*, *30*(3), 614-637. https://doi.org/10.1111/jems.12428

Evans, D. S. (2003a). The Antitrust Economics of Multi-Sided Platform Markets. *Yale Journal on Regulation*, *20*, 325-381.

Evans, D. S. (2003b). Some Empirical Aspects of Multi-Sided Platform Industries. *Review of Network Economics*, *2*(3), 191-209.

Evans, P. C., & Gawer, A. (2016). *The Rise of the Platform Enterprise: A Global Survey*. Centre for the Global Enterprise.

Fang, E., Li, X., Huang, M., & Palmatier, R. W. (2015). Direct and Indirect Effects of Buyers and Sellers on Search Advertising Revenues in Business-to-Business Electronic Platforms. *Journal of Marketing Research*, *52*(3), 407-422. https://doi.org/10.1509/jmr.13.0165

Foss, N. J. (2000). The Theory of the Firm: An Introduction to Themes and Contributions. In N. J. Foss (Ed.), *The Theory of the Firm: Critical Perspectives in Economic Organization* (Vol. 1). Routledge.

Foss, N. J., & Saebi, T. (2017). Fifteen Years of Research on Business Model Innovation:How Far Have We Come, and Where Should We Go? *Journal of Management*, *43*(1), 200-227. https://doi.org/10.1177/0149206316675927

Fox, N. J. (2008). Post-Positivism. In L. M. Given (Ed.), *The Sage Encyclopedia of Qualitative Research Methods* (Vol. 2, pp. 659-664). Sage.

Francis, J. J., Johnston, M., Robertson, C., Glidewell, L., Entwistle, V., Eccles, M. P., & Grimshaw, J. M. (2010). What Is an Adequate Sample Size? Operationalising Data Saturation for Theory-Based Interview Studies. *Psychology & Health*, *25*(10), 1229-1245. https://doi.org/10.1080/08870440903194015

Franke, T., & zu Knyphausen-Aufsess, D. (2014). On Dominant Logic: Review and Synthesis. *Journal of Business Economics*, *84*(1), 27-70. https://doi.org/10.1007/s11573-013-0690-4

Friedland, R., & Alford, R. R. (Eds.). (1991). *Bringing Society Back In: Symbols, Practices, and Institutional Contradictions*. University of Chicago Press.

Friend, S. B., & Malshe, A. (2016). Key Skills for Crafting Customer Solutions within an Ecosystem: A Theories-in-Use Perspective. *Journal of Service Research*, *19*(2), 174-191. https://doi.org/10.1177/1094670515617154

Furman, J., Gawer, A., Silverman, B. S., & Stern, S. (2017). Introduction: Entrepreneurship, Innovation, and Platforms. In *Advances in Strategic Management* (Vol. 37, pp. 9-21). Emerald Group Publishing. https://doi.org/10.1108/S0742-332220170000037015

Fürstenau, D., Auschra, C., Klein, S., & Gersch, M. (2019). A Process Perspective on Platform Design and Management: Evidence from a Digital Platform in Health Care. *Electronic Markets*, *29*(4), 581-596. https://doi.org/10.1007/s12525-018-0323-4

Gary, M. S., & Wood, R. E. (2011). Mental Models, Decision Rules, and Performance Heterogeneity. *Strategic Management Journal*, *32*(6), 569-594. https://doi.org/https://doi.org/10.1002/smj.899

Gawer, A. (2014). Bridging Differing Perspectives on Technological Platforms: Toward an Integrative Framework. *Research Policy*, *43*(7), 1239-1249. https://doi.org/10.1016/j.respol.2014.03.006

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

Gawer, A. (2022). Digital Platforms and Ecosystems: Remarks on the Dominant Organizational Forms of the Digital Age. *Innovation*, *24*(1), 110-124. https://doi.org/10.1080/14479338.2021.1965888

Gawer, A., & Cusumano, M. A. (2002). *Platform Leadership: How Intel, Microsoft, and Cisco Drive Industry Innovation* (Vol. 5). Harvard Business School Press Boston.

Gawer, A., & Cusumano, M. A. (2008a). How Companies Become Platform Leaders. *MIT Sloan Management Review*, *49*(2), 28-35.

Gawer, A., & Cusumano, M. A. (2008b). Platform Leaders. *MIT Sloan Management Review*.

Gawer, A., & Cusumano, M. A. (2014). Industry Platforms and Ecosystem Innovation. *Journal of Product Innovation Management*, *31*(3), 417-433. https://doi.org/10.1111/jpim.12105

Gawer, A., & Henderson, R. (2007). Platform Owner Entry and Innovation in Complementary Markets: Evidence from Intel. *Journal of Economics and Management Strategy*, *16*(1), 1-34. https://doi.org/10.1111/j.1530-9134.2007.00130.x

Gawer, A., & Phillips, N. (2013). Institutional Work as Logics Shift: The Case of Intel's Transformation to Platform Leader. *Organization Studies*, *34*(8), 1035-1071. https://doi.org/10.1177/0170840613492071

Gazé, P., & Vaubourg, A. G. (2011). Electronic Platforms and Two-Sided Markets: A Side-Switching Analysis. *Journal of High Technology Management Research*, *22*(2), 158-165. https://doi.org/10.1016/j.hitech.2011.09.007

Genz, R., & Dembeck, S. (2022a). *Zalando Q2/2022 Earnings Call* https://corporate.zalando.com/en/investor-relations

Genz, R., & Dembeck, S. (2022b). *Zalando Q3/2022 Earnings Call* https://corporate.zalando.com/en/investor-relations

Genz, R., & Schneider, D. (2023). *Zalando Fy/2022 Strategy Update* https://corporate.zalando.com/en/investor-relations

Glaser, B. G., & Strauss, A. L. (1999). *Discovery of Grounded Theory: Strategies for Qualitative Research*. Hawthorn.

Glaser, B. G., & Strauss, A. L. (2017). *Discovery of Grounded Theory: Strategies for Qualitative Research*. Routledge.

Gregory, R. W., Henfridsson, O., Kaganer, E., & Kyriakou, H. (2021). The Role of Artificial Intelligence and Data Network Effects for Creating User Value. *Academy of Management Review*, *46*(3), 534-551. https://doi.org/10.5465/amr.2019.0178

Greve, H. R., & Song, S. Y. (2017). Amazon Warrior: How a Platform Can Restructure Industry Power and Ecology. In *Entrepreneurship, Innovation, and Platforms (Advances in Strategic Management)* (Vol. 37, pp. 299-335). Emerald Publishing. https://doi.org/10.1108/S0742-332220170000037010

Gruner, K. E., & Homburg, C. (2000). Does Customer Interaction Enhance New Product Success? *Journal of Business Research*, *49*(1), 1-14. https://doi.org/10.1016/S0148-2963(99)00013-2

Guba, E. G., & Lincoln, Y. S. (1994). Competing Paradigms in Qualitative Research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (pp. 105-117). Sage Publications.

Guillén, M. F. (2001). *The Limits of Convergence: Globalization and Organizational Change in Argentina, South Korea, and Spain*. Princeton University Press.

Hagel Iii, J., Brown, J. S., & Davison, L. (2008). Shaping in a World of Constant Disruption. *Harvard Business Review*, *86*(10), 80-89+141.

Hagiu, A. (2006). Pricing and Commitment by Two-Sided Platforms. *The RAND Journal of Economics*, *37*(3), 720-737.

Hagiu, A. (2007). Merchant or Two-Sided Platform? *Review of Network Economics*, *6*(2). https://doi.org/10.2202/1446-9022.1113

Hagiu, A. (2009). Two-Sided Platforms: Product Variety and Pricing Structures. *Journal of Economics and Management Strategy*, *18*(4), 1011-1043. https://doi.org/10.1111/j.1530-9134.2009.00236.x

Hagiu, A. (2014). Strategic Decisions for Multisided Platforms. *MIT Sloan Management Review*, *55*(2), 71-80.

Hagiu, A., & Altman, E. J. (2017). Finding the Platform in Your Product. *Harvard Business Review*, *95*(4), 94-100.

Hagiu, A., & Wright, J. (2015). Multi-Sided Platforms. *International Journal of Industrial Organization*, *43*, 162-174. https://doi.org/10.1016/j.ijindorg.2015.03.003

Hahn, T., Preuss, L., Pinkse, J., & Figge, F. (2014). Cognitive Frames in Corporate Sustainability: Managerial Sensemaking with Paradoxical and Business Case Frames. *Academy of Management Review*, *39*(4), 463-487. https://doi.org/10.5465/amr.2012.0341

Halaburda, H., & Yehezkel, Y. (2019). Focality Advantage in Platform Competition. *Journal of Economics and Management Strategy*, *28*(1), 49-59. https://doi.org/10.1111/jems.12308

Hałaburda, H., & Yehezkel, Y. (2016). The Role of Coordination Bias in Platform Competition. *Journal of Economics and Management Strategy*, *25*(2), 274-312. https://doi.org/10.1111/jems.12163

Healey, J., & Moe, W. W. (2016). The Effects of Installed Base Innovativeness and Recency on Content Sales in a Platform-Mediated Market. *International Journal of Research in Marketing*, *33*(2), 246-260. https://doi.org/10.1016/j.ijresmar.2015.07.004

Hein, A., Schreieck, M., Riasanow, T., Setzke, D. S., Wiesche, M., Böhm, M., & Krcmar, H. (2020). Digital Platform Ecosystems. *Electronic Markets*, *30*(1), 87-98. https://doi.org/10.1007/s12525-019-00377-4

Hein, A., Schreieck, M., Wiesche, M., Böhm, M., & Krcmar, H. (2019a). The Emergence of Native Multi-Sided Platforms and Their Influence on Incumbents. *Electronic Markets*, *29*(4), 631-647. https://doi.org/10.1007/s12525-019-00350-1

Hein, A., Weking, J., Schreieck, M., Wiesche, M., Böhm, M., & Krcmar, H. (2019b). Value Co-Creation Practices in Business-to-Business Platform Ecosystems. *Electronic Markets*, *29*(3), 503-518. https://doi.org/10.1007/s12525-019-00337-y

Helfat, C. E., & Raubitschek, R. S. (2018). Dynamic and Integrative Capabilities for Profiting from Innovation in Digital Platform-Based Ecosystems. *Research Policy*, *47*(8), 1391-1399. https://doi.org/10.1016/j.respol.2018.01.019

Hokkanen, H., Hänninen, M., Yrjölä, M., & Saarijärvi, H. (2021). From Customer to Actor Value Propositions: An Analysis of Digital Transaction Platforms. *The International Review of Retail, Distribution and Consumer Research*, *31*(3), 257-279. https://doi.org/10.1080/09593969.2021.1880463

Hopland, S., & Resvoll, A. (2022, March 26). Klager Finn.No Inn for Konkurransetilsynet. *E24*. https://e24.no/privatoekonomi/i/PoAzW5/klager-finnno-inn-for-konkurransetilsynet

Hossain, T., & Morgan, J. (2013). When Do Markets Tip? A Cognitive Hierarchy Approach. *Marketing Science*, *32*(3), 431-453. https://doi.org/10.1287/mksc.1120.0770

Hukal, P., Henfridsson, O., Shaikh, M., & Parker, G. (2020). Platform Signaling for Generating Platform Content. *MIS Quarterly*, *44*(3), 1177-1205.

Hulland, J., & Houston, M. B. (2020). Why Systematic Review Papers and Meta-Analyses Matter: An Introduction to the Special Issue on Generalizations in Marketing. *Journal of the Academy of Marketing Science*, *48*(3), 351-359. https://doi.org/10.1007/s11747-020-00721-7

Hunt, S. (1991). *Modern Marketing Theory: Critical Issues in the Philosophy of Marketing Science*. South-Western Publishing.

Hyde, K. F. (2000). Recognising Deductive Processes in Qualitative Research. *Qualitative Market Research: An International Journal*, *3*(2), 82-90. https://doi.org/10.1108/13522750010322089

Hänninen, M. (2020). Review of Studies on Digital Transaction Platforms in Marketing Journals. *The International Review of Retail, Distribution and Consumer Research*, *30*(2), 164-192. https://doi.org/10.1080/09593969.2019.1651380

Hänninen, M., Mitronen, L., & Kwan, S. K. (2019). Multi-Sided Marketplaces and the Transformation of Retail: A Service Systems Perspective. *Journal of Retailing and Consumer Services*, *49*, 380-388. https://doi.org/10.1016/j.jretconser.2019.04.015

Hänninen, M., & Smedlund, A. (2021). Same Old Song with a Different Melody: The Paradox of Market Reach and Financial Performance on Digital Platforms. *Journal of Management Studies*. https://doi.org/10.1111/joms.12701

Hänninen, M., Smedlund, A., & Mitronen, L. (2018). Digitalization in Retailing: Multi-Sided Platforms as Drivers of Industry Transformation. *Baltic Journal of Management*, *13*(2), 152-168. https://doi.org/10.1108/BJM-04-2017-0109

Iansiti, M., & Euchner, J. (2018). Competing in Ecosystems: An Interview with Marco Iansitimarco Iansiti Talks with Jim Euchner About Digital Hubs, the Platforms at the

Heart of Them, and How to Compete in Emerging Digital Ecosystems. *Research Technology Management*, *61*(2), 10-16. https://doi.org/10.1080/08956308.2018.1421378

Iansiti, M., & Lakhani, K. R. (2017). Managing Our Hub Economy. Strategy, Ethics, and Network Competition in the Age of Digital Superpowers. *Harvard Business Review*, *95*(5), 84-92.

Inoue, Y., & Tsujimoto, M. (2018). Genres of Complementary Products in Platform-Based Markets: Changes in Evolutionary Mechanisms by Platform Diffusion Strategies. *International Journal of Innovation Management*, *22*(1), Article 1850004. https://doi.org/10.1142/S1363919618500044

Jacobides, M. G., Cennamo, C., & Gawer, A. (2018). Towards a Theory of Ecosystems. *Strategic Management Journal*, *39*(8), 2255-2276. https://doi.org/10.1002/smj.2904

Jacobides, M. G., Cennamo, C., & Gawer, A. (2024). Externalities and Complementarities in Platforms and Ecosystems: From Structural Solutions to Endogenous Failures. *Research Policy*, *53*(1), 104906. https://doi.org/10.1016/j.respol.2023.104906

Jay, J. (2013). Navigating Paradox as a Mechanism of Change and Innovation in Hybrid Organizations. *Academy of Management Journal*, *56*(1), 137-159. https://doi.org/10.5465/amj.2010.0772

Jia, X., Cusumano, M. A., & Chen, J. (2021). Multisided Platform Research over the Past Three Decades: A Bibliometric Analysis. *International Journal of Technology Management*, *87*(2-4), 113-144.

Jiang, B., Jerath, K., & Srinivasan, K. (2011). Firm Strategies in the "Mid Tail" of Platform-Based Retailing. *Marketing Science*, *30*(5), 757-775. https://doi.org/10.1287/mksc.1110.0656

Jiang, B., & Zou, T. (2020). Consumer Search and Filtering on Online Retail Platforms. *Journal of Marketing Research*, *57*(5), 900-916. https://doi.org/10.1177/0022243720928367

Kandampully, J. (2003). B2b Relationships and Networks in the Internet Age. *Management Decision*, *41*(5), 443-451. https://doi.org/10.1108/00251740310479296

Kapoor, R. (2018). Ecosystems: Broadening the Locus of Value Creation. *Journal of Organization Design*, *7*(1), 12. https://doi.org/10.1186/s41469-018-0035-4

Karhu, K., & Ritala, P. (2020). Slicing the Cake without Baking It: Opportunistic Platform Entry Strategies in Digital Markets. *Long Range Planning*, Article 101988. https://doi.org/10.1016/j.lrp.2020.101988

Katz, M. L. (2019). Platform Economics and Antitrust Enforcement: A Little Knowledge Is a Dangerous Thing. *Journal of Economics and Management Strategy*, *28*(1), 138-152. https://doi.org/10.1111/jems.12304

Katz, M. L., & Shapiro, C. (1985). Network Externalities, Competition, and Compatibility. *The American Economic Review*, *75*(3), 424-440. http://www.jstor.org/stable/1814809

Katz, M. L., & Shapiro, C. (1986). Technology Adoption in the Presence of Network Externalities. *Journal of Political Economy*, *94*(4), 822-841. https://doi.org/10.1086/261409

Katz, M. L., & Shapiro, C. (1994). Systems Competition and Network Effects. *Journal of Economic Perspectives*, *8*(2), 93-115. https://doi.org/10.1257/jep.8.2.93

Keidel, R. W. (2005). Strategize on a Napkin. *Strategy & Leadership*, *33*(4), 58-59.

Kenney, M., Rouvinen, P., Seppälä, T., & Zysman, J. (2019). Platforms and Industrial Change. *Industry and Innovation*, *26*(8), 871-879. https://doi.org/ggnbsx

Khanagha, S., Ansari, S., Paroutis, S., & Oviedo, L. (2020). Mutualism and the Dynamics of New Platform Creation: A Study of Cisco and Fog Computing. *Strategic Management Journal*. https://doi.org/10.1002/smj.3147

Kim, D.-J., & Kogut, B. (1996). Technological Platforms and Diversification. *Organization Science*, *7*(3), 283-301.

Kim, D. Y., & Kim, S. Y. (2022). The Impact of Customer-Generated Evaluation Information on Sales in Online Platform-Based Markets. *Journal of Retailing and Consumer Services*, *68*, 103016. https://doi.org/10.1016/j.jretconser.2022.103016

Kogut, B., & Kulatilaka, N. (1994). Options Thinking and Platform Investments: Investing in Opportunity. *California Management Review*, *36*(2), 52-71.

Kollmann, T., Hensellek, S., de Cruppe, K., & Sirges, A. (2020). Toward a Renaissance of Cooperatives Fostered by Blockchain on Electronic Marketplaces: A Theory-Driven Case Study Approach. *Electronic Markets*, *30*(2), 273-284. https://doi.org/10.1007/s12525-019-00369-4

Komplett. (2023). *Annual Report 2022*. Komplett. Retrieved from: https://www.komplettgroup.com/investor-relations/

Kretschmer, T., Leiponen, A., Schilling, M., & Vasudeva, G. (2020). Platform Ecosystems as Meta-Organizations: Implications for Platform Strategies. *Strategic Management Journal*. https://doi.org/10.1002/smj.3250

Kurtmollaiev, S., Fjuk, A., Pedersen, P. E., Clatworthy, S., & Kvale, K. (2018). Organizational Transformation through Service Design: The Institutional Logics Perspective. *Journal of Service Research*, *21*(1), 59-74. https://doi.org/10.1177/1094670517738371

Laczko, P., Hullova, D., Needham, A., Rossiter, A. M., & Battisti, M. (2019). The Role of a Central Actor in Increasing Platform Stickiness and Stakeholder Profitability: Bridging the Gap between Value Creation and Value Capture in the Sharing Economy. *Industrial Marketing Management*, *76*, 214-230. https://doi.org/ghb7jb

Ladd, T. (2022). The Achilles' Heel of the Platform Business Model: Disintermediation. *Business Horizons*, *65*(3), 277-289. https://doi.org/10.1016/j.bushor.2021.02.049

Lamberton, C., & Stephen, A. T. (2016). A Thematic Exploration of Digital, Social Media, and Mobile Marketing: Research Evolution from 2000 to 2015 and an Agenda for Future Inquiry. *Journal of Marketing*, *80*(6), 146-172. https://doi.org/10.1509/jm.15.0415

Lan, S., Liu, K., & Dong, Y. (2019). Dancing with Wolves: How Value Creation and Value Capture Dynamics Affect Complementor Participation in Industry Platforms. *Industry and Innovation*, *26*(8), 943-963. https://doi.org/10.1080/13662716.2019.1598339

Landsman, V., & Stremersch, S. (2011). Multihoming in Two-Sided Markets: An Empirical Inquiry in the Video Game Console Industry. *Journal of Marketing*, *75*(6), 39-54. https://doi.org/10.1509/jm.09.0199

Lee, J. Y., Fang, E., Kim, J. J., Li, X., & Palmatier, R. W. (2018). The Effect of Online Shopping Platform Strategies on Search, Display, and Membership Revenues. *Journal of Retailing*, *94*(3), 247-264. https://doi.org/10.1016/j.jretai.2018.06.002

Lee, R. S. (2014). Competing Platforms. *Journal of Economics and Management Strategy*, *23*(3), 507-526. https://doi.org/10.1111/jems.12068

Lehdonvirta, V., Kässi, O., Hjorth, I., Barnard, H., & Graham, M. (2019). The Global Platform Economy: A New Offshoring Institution Enabling Emerging-Economy Microproviders. *Journal of Management*, *45*(2), 567-599. https://doi.org/10.1177/0149206318786781

Lepak, D. P., Smith, K. G., & Taylor, M. S. (2007). Value Creation and Value Capture: A Multilevel Perspective. *Academy of Management Review*, *32*(1), 180-194. https://doi.org/10.5465/amr.2007.23464011

Li, X., Li, X., & Wang, R. (2018). An Investigation on Incentive Strategies in Community Building in Business-to-Business Electronic Markets. *Journal of Business-to-Business Marketing*, *25*(4), 261-272. https://doi.org/10.1080/1051712X.2018.1519966

Li, X., & Vermeulen, F. (2021). High Risk, Low Return (and Vice Versa): The Effect of Product Innovation on Firm Performance in a Transition Economy. *Academy of Management Journal*, *64*(5), 1383-1418. https://doi.org/10.5465/amj.2017.1311

Liebowitz, S. J., & Margolis, S. E. (1994). Network Externality: An Uncommon Tragedy. *Journal of Economic Perspectives*, *8*(2), 133-150.

Liebowitz, S. J., & Margolis, S. E. (1995). Path Dependence, Lock-in, and History. *Journal of Law, Economics, & Organization*, 205-226.

Lilien, G. L. (2011). Bridging the Academic–Practitioner Divide in Marketing Decision Models. *Journal of Marketing*, *75*(4), 196-210. https://doi.org/10.1509/jmkg.75.4.196

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic Inquiry*. Sage Publications.

Liu, Y., Chen, D. Q., & Gao, W. (2020). How Does Customer Orientation (in)Congruence Affect B2b Electronic Commerce Platform Firms' Performance? *Industrial Marketing Management*, *87*, 18-30. https://doi.org/10.1016/j.indmarman.2020.02.027

Loginova, O. (2022). Price Competition Online: Platforms Versus Branded Websites. *Journal of Economics & Management Strategy*, *31*(2), 259-283. https://doi.org/khnn

Lome, K. B., & Andersen, E. (2019). Finn.No: En Metode for Disiplinert Strategisk Eksperimentering. *Magma*, *2019*(3), 68-72.

Loux, P., Aubry, M., Tran, S., & Baudoin, E. (2020). Multi-Sided Platforms in B2b Contexts: The Role of Affiliation Costs and Interdependencies in Adoption Decisions. *Industrial Marketing Management*, *84*, 212-223. https://doi.org/gjgzb8

Lueg, R. (2015). Strategy Maps: The Essential Link between the Balanced Scorecard and Action. *Journal of Business Strategy*, *36*(2), 34-40. https://doi.org/10.1108/JBS-10-2013-0101

Laasch, O. (2018). Beyond the Purely Commercial Business Model: Organizational Value Logics and the Heterogeneity of Sustainability Business Models. *Long Range Planning*, *51*(1), 158-183. https://doi.org/https://doi.org/10.1016/j.lrp.2017.09.002

Macduffie, J. P. (1995). Human Resource Bundles and Manufacturing Performance: Organizational Logic and Flexible Production Systems in the World Auto Industry. *ILR Review*, *48*(2), 197-221. https://doi.org/10.1177/001979399504800201

Macpherson, A., & Jones, O. (2010). Editorial: Strategies for the Development of International Journal of Management Reviews. *International Journal of Management Reviews*, *12*(2), 107-113. https://doi.org/10.1111/j.1468-2370.2010.00282.x

Maddux, W. W., Lu, J. G., Affinito, S. J., & Galinsky, A. D. (2021). Multicultural Experiences: A Systematic Review and New Theoretical Framework. *Academy of Management Annals*, *15*(2), 345-376.

Madhok, A. (1996). Crossroads—the Organization of Economic Activity: Transaction Costs, Firm Capabilities, and the Nature of Governance. *Organization Science*, *7*(5), 577-590. https://doi.org/10.1287/orsc.7.5.577

Magretta, J. (2002). Why Business Models Matter. *Harvard Business Review*, *80*(5), 86-92.

Markoff, R., Schröder, D., Huchzermeier, A., & Seifert, R. W. (2022). *Zalando: A Digital Foundation for Fashion Supply Chain Success* [Teaching case]. International Institute for Management Development (IMD).

Massa, L., & Tucci, C. L. (2021). Innovation and Business Models. *Oxford Research Encyclopedia of Business and Management.* Retrieved 2021-04-26, from https://oxfordre.com/business/view/10.1093/acrefore/9780190224851.001.0001/acrefore-9780190224851-e-296

Massa, L., Tucci, C. L., & Afuah, A. (2017). A Critical Assessment of Business Model Research. *Academy of Management Annals*, *11*(1), 73-104. https://doi.org/10.5465/annals.2014.0072

Mathmann, F., Chylinski, M., de Ruyter, K., & Higgins, E. T. (2017). When Plentiful Platforms Pay Off: Assessment Orientation Moderates the Effect of Assortment Size on Choice Engagement and Product Valuation. *Journal of Retailing*, *93*(2), 212-227. https://doi.org/10.1016/j.jretai.2017.02.001

Matthing, J., Sanden, B., & Edvardsson, B. (2004). New Service Development: Learning from and with Customers. *International Journal of Service Industry Management*, *15*(5), 479-498. https://doi.org/10.1108/09564230410564948

McIntyre, D. P., & Srinivasan, A. (2017). Networks, Platforms, and Strategy: Emerging Views and Next Steps. *Strategic Management Journal*, *38*(1), 141-160. https://doi.org/10.1002/smj.2596

McIntyre, D. P., Srinivasan, A., Afuah, A., Gawer, A., & Kretschmer, T. (2021). Multisided Platforms as New Organizational Forms. *Academy of Management Perspectives*, *35*(4), 566-583. https://doi.org/10.5465/amp.2018.0018

McIntyre, D. P., Srinivasan, A., & Chintakananda, A. (2020). The Persistence of Platforms: The Role of Network, Platform, and Complementor Attributes. *Long Range Planning*, Article 101987. https://doi.org/10.1016/j.lrp.2020.101987

McKinsey. (2018). *Winning in Digital Ecosystems* (Digital McKinsey Insights, Issue January).

Mell, J. N., DeChurch, L. A., Leenders, R. T. A. J., & Contractor, N. (2020). Identity Asymmetries: An Experimental Investigation of Social Identity and Information Exchange in Multiteam Systems. *Academy of Management Journal*, *63*(5), 1561-1590. https://doi.org/10.5465/amj.2018.0325

Meyer, M. H., & Lehnerd, A. P. (1997). *The Power of Product Platforms: Building Value and Cost Leadership*. Free Press.

Meyer, M. H., & Utterback, J., M. (1993). The Product Family and the Dynamics of Core Capability. *Sloan Management Review*, *34*(3), 29-47.

Mikalef, P., Pappas, I. O., Krogstie, J., & Giannakos, M. (2018). Big Data Analytics Capabilities: A Systematic Literature Review and Research Agenda. *Information Systems and e-Business Management*, *16*(3), 547-578. https://doi.org/10.1007/s10257-017-0362-y

Miles, M. B., & Huberman, A. M. (1984). Drawing Valid Meaning from Qualitative Data: Toward a Shared Craft. *Educational Researcher*, *13*(5), 20-30. https://doi.org/10.3102/0013189x013005020

Miles, M. B., & Huberman, A. M. (1994). *Qualitative Data Analysis: An Expanded Sourcebook* (2nd ed.). Sage.

Miric, M., Boudreau, K. J., & Jeppesen, L. B. (2019). Protecting Their Digital Assets: The Use of Formal & Informal Appropriability Strategies by App Developers. *Research Policy*, *48*(8), Article 103738. https://doi.org/10.1016/j.respol.2019.01.012

Muzellec, L., Ronteau, S., & Lambkin, M. (2015). Two-Sided Internet Platforms: A Business Model Lifecycle Perspective. *Industrial Marketing Management*, *45*(1), 139-150. https://doi.org/10.1016/j.indmarman.2015.02.012

Nambisan, S., & Baron, R. A. (2019). On the Costs of Digital Entrepreneurship: Role Conflict, Stress, and Venture Performance in Digital Platform-Based Ecosystems. *Journal of Business Research*. https://doi.org/10.1016/j.jbusres.2019.06.037

Niesten, E., & Stefan, I. (2019). Embracing the Paradox of Interorganizational Value Co-Creation–Value Capture: A Literature Review Towards Paradox Resolution. *International Journal of Management Reviews*, *21*(2), 231-255. https://doi.org/10.1111/ijmr.12196

Nuccio, M., & Guerzoni, M. (2019). Big Data: Hell or Heaven? Digital Platforms and Market Power in the Data-Driven Economy. *Competition and Change*, *23*(3), 312-328. https://doi.org/10.1177/1024529418816525

O'Cass, A., & Ngo, L. V. (2011). Examining the Firm's Value Creation Process: A Managerial Perspective of the Firm's Value Offering Strategy and Performance. *British Journal of Management*, *22*(4), 646-671. https://doi.org/10.1111/j.1467-8551.2010.00694.x

Ocasio, W., & Radoynovska, N. (2016). Strategy and Commitments to Institutional Logics: Organizational Heterogeneity in Business Models and Governance. *Strategic Organization*, *14*(4), 287-309. https://doi.org/10.1177/1476127015625040

Ody-Brasier, A., & Vermeulen, F. (2020). Who Is Punished Most for Challenging the Status Quo? *Academy of Management Journal*, *63*(5), 1621-1651. https://doi.org/10.5465/amj.2017.0683

Ogonowski, P. (2020). *15 Ecommerce Conversion Rate Statistics*. Retrieved August 2, 2023 from https://www.growcode.com/blog/ecommerce-conversion-rate

Ordanini, A., & Pol, A. (2001). Infomediation and Competitive Advantage in B2b Digital Marketplaces. *European Management Journal*, *19*(3), 276-285. https://doi.org/10.1016/S0263-2373(01)00024-X

Ortiz, G. (2023, September 5). Zalando Elimina Las Reseñas De Los Productos. https://ecommerce-news.es/zalando-elimina-las-resenas-de-los-productos/

Ozalp, H., Cennamo, C., & Gawer, A. (2018). Disruption in Platform-Based Ecosystems. *Journal of Management Studies*, *55*(7), 1203-1241. https://doi.org/10.1111/joms.12351

Palmatier, R. W., Houston, M. B., & Hulland, J. (2018). Review Articles: Purpose, Process, and Structure. *Journal of the Academy of Marketing Science*, *46*(1), 1-5. https://doi.org/10.1007/s11747-017-0563-4

Panico, C., & Cennamo, C. (2020). User Preferences and Strategic Interactions in Platform Ecosystems. *Strategic Management Journal*. https://doi.org/10.1002/smj.3149

Parker, G., & Van Alstyne, M. (2018). Innovation, Openness, and Platform Control. *Management Science*, *64*(7), 3015-3032.

Parker, G. G., & Van Alstyne, M. W. (2005). Two-Sided Network Effects: A Theory of Information Product Design. *Management Science*, *51*(10), 1494-1504. http://www.jstor.org/stable/20110438

Parker, G. G., Van Alstyne, M. W., & Choudary, S. P. (2016). *Platform Revolution: How Networked Markets Are Transforming the Economy and How to Make Them Work for You*. WW Norton & Company.

Parmentier, G., & Gandia, R. (2017). Redesigning the Business Model: From One-Sided to Multi-Sided. *Journal of Business Strategy*, *38*(2), 52-61. https://doi.org/10.1108/JBS-09-2016-0097

Patton, M. Q. (1990). *Qualitative Evaluation and Research Methods* (2nd ed.). Sage Publications.

Patton, M. Q. (2002). Two Decades of Developments in Qualitative Inquiry: A Personal, Experiential Perspective. *Qualitative Social Work*, *1*(3), 261-283.

Patton, M. Q. (2015). Qualitative Research and Methods: Integrating Theory and Practice. In: London: Sage Publications Ltd.

Payne, A., Frow, P., & Eggert, A. (2017). The Customer Value Proposition: Evolution, Development, and Application in Marketing. *Journal of the Academy of Marketing Science*, *45*(4), 467-489. https://doi.org/10.1007/s11747-017-0523-z

Pedersen, P. E., Solem, B. A., & Bentsen, K. (2017). Business Model Innovation in the Retail Industry: A Service System Perspective. In M. Lüders, T. W. Andreassen, S. Clatworthy, & T. Hillestad (Eds.), *Innovating for Trust* (pp. 131-144). Edward Elgar Publishing.

Pellizzoni, E., Trabucchi, D., & Buganza, T. (2019). Platform Strategies: How the Position in the Network Drives Success. *Technology Analysis and Strategic Management*, *31*(5), 579-592. https://doi.org/10.1080/09537325.2018.1524865

Perks, H., Kowalkowski, C., Witell, L., & Gustafsson, A. (2017). Network Orchestration for Value Platform Development. *Industrial Marketing Management*, *67*, 106-121. https://doi.org/10.1016/j.indmarman.2017.08.002

Perren, R., & Kozinets, R. V. (2018). Lateral Exchange Markets: How Social Platforms Operate in a Networked Economy. *Journal of Marketing*, *82*(1), 20-36. https://doi.org/gfw2zc

Peteraf, M. A. (1993). The Cornerstones of Competitive Advantage: A Resource-Based View. *Strategic Management Journal*, *14*(3), 179-191. https://doi.org/bch762

Porter, M. E. (1980). *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. Free Press.

Porter, M. E. (1985). *Competitive Advantage: Creating and Sustaining Superior Performance*. Free Press.

Porter, M. E. (1996). What Is Strategy? *Harvard Business Review*, *74*(6), 61-78.

Porter, M. E. (2001). Strategy and the Internet. *Harvard Business Review*, *79*(3), 62-78, 164. https://www.scopus.com/inward/record.uri?eid=2-s2.0-0035289645&partnerID=40&md5=ca49945199d256e5c1c43994dd478458

Pousttchi, K., & Gleiss, A. (2019). Surrounded by Middlemen - How Multi-Sided Platforms Change the Insurance Industry. *Electronic Markets*, *29*(4), 609-629. https://doi.org/10.1007/s12525-019-00363-w

Prahalad, C. K., & Bettis, R. A. (1986). The Dominant Logic: A New Linkage between Diversity and Performance. *Strategic Management Journal*, *7*(6), 485-501. https://doi.org/dqm745

Priem, R. L. (2001). "The" Business-Level Rbv: Great Wall or Berlin Wall? *The Academy of Management Review*, *26*(4), 499-501. http://www.jstor.org/stable/3560234

Priem, R. L. (2007). A Consumer Perspective on Value Creation. *Academy of Management Review*, *32*(1), 219-235. https://doi.org/10.5465/amr.2007.23464055

Priem, R. L., Butler, J. E., & Li, S. (2013). Toward Reimagining Strategy Research: Retrospection and Prospection on the 2011 Amr Decade Award Article. *Academy of Management Review*, *38*(4), 471-489.

Priem, R. L., Li, S., & Carr, J. C. (2012). Insights and New Directions from Demand-Side Approaches to Technology Innovation, Entrepreneurship, and Strategic Management Research. *Journal of Management*, *38*(1), 346-374. https://doi.org/dmwpqh

Priem, R. L., Wenzel, M., & Koch, J. (2018). Demand-Side Strategy and Business Models: Putting Value Creation for Consumers Center Stage. *Long Range Planning*, *51*(1), 22-31. https://doi.org/10.1016/j.lrp.2017.07.007

Ramaswamy, V. (2020). Leading the Experience Ecosystem Revolution: Innovating Offerings as Interactive Platforms. *Strategy and Leadership*, *48*(3), 3-9. https://doi.org/10.1108/SL-01-2020-0014

Ramaswamy, V., & Ozcan, K. (2018a). Offerings as Digitalized Interactive Platforms: A Conceptual Framework and Implications. *Journal of Marketing*, *82*(4), 19-31. https://doi.org/10.1509/jm.15.0365

Ramaswamy, V., & Ozcan, K. (2018b). What Is Co-Creation? An Interactional Creation Framework and Its Implications for Value Creation. *Journal of Business Research*, *84*, 196-205. https://doi.org/10.1016/j.jbusres.2017.11.027

Rangaswamy, A., Moch, N., Felten, C., van Bruggen, G., Wieringa, J. E., & Wirtz, J. (2020). The Role of Marketing in Digital Business Platforms. *Journal of Interactive Marketing*, *51*, 72-90. https://doi.org/10.1016/j.intmar.2020.04.006

Reimers, K., Guo, X., & Li, M. (2019). Beyond Markets, Hierarchies, and Hybrids: An Institutional Perspective on It-Enabled Two-Sided Markets. *Electronic Markets*, *29*(2), 287-305. https://doi.org/10.1007/s12525-018-0319-0

Reinartz, W., Wiegand, N., & Imschloss, M. (2019). The Impact of Digital Transformation on the Retailing Value Chain. *International Journal of Research in Marketing*, *36*(3), 350-366. https://doi.org/10.1016/j.ijresmar.2018.12.002

Remané, G., Schneider, S., & Hanelt, A. (2022). Digital Business Model Types: Understanding Their Mechanisms as Recipes to Commercialise Digital Technologies. *International Journal of Innovation Management*, *26*(3), 2240019. https://doi.org/10.1142/s1363919622400199

RetailX. (2023). *European Marketplaces 2023*. https://internetretailing.net/report-hub/european-marketplaces-report-2023/

Rietveld, J. (2018). Creating and Capturing Value from Freemium Business Models: A Demand-Side Perspective. *Strategic Entrepreneurship Journal*, *12*(2), 171-193. https://doi.org/10.1002/sej.1279

Rietveld, J., & Schilling, M. A. (2021). Platform Competition: A Systematic and Interdisciplinary Review of the Literature. *Journal of Management*, *47*(6), 1528-1563. https://doi.org/10.1177/0149206320969791

Ritala, P., Golnam, A., & Wegmann, A. (2014). Coopetition-Based Business Models: The Case of Amazon.Com. *Industrial Marketing Management*, *43*(2), 236-249. https://doi.org/10.1016/j.indmarman.2013.11.005

Robertson, D., & Ulrich, K. (1998). Planning for Product Platforms. *MIT Sloan Management Review*, *39*(4), 19-32.

Rochet, J.-C., & Tirole, J. (2002). Cooperation among Competitors: Some Economics of Payment Card Associations. *RAND Journal of Economics*, *33*(4), 549-570.

Rochet, J.-C., & Tirole, J. (2003). Platform Competition in Two-Sided Markets. *Journal of the European Economic Association*, *1*(4), 990-1029. https://doi.org/b45krd

Rochet, J.-C., & Tirole, J. (2006). Two-Sided Markets: A Progress Report. *RAND Journal of Economics*, *37*(3), 645-667.

Roger, G., & Vasconcelos, L. (2014). Platform Pricing Structure and Moral Hazard. *Journal of Economics and Management Strategy*, *23*(3), 527-547. https://doi.org/khnm

Rohlfs, J. (1974). A Theory of Interdependent Demand for a Communications Service. *The Bell Journal of Economics and Management Science*, *5*(1), 16-37. https://doi.org/10.2307/3003090

Rohn, D., Bican, P. M., Brem, A., Kraus, S., & Clauss, T. (2021). Digital Platform-Based Business Models – an Exploration of Critical Success Factors. *Journal of Engineering and Technology Management*, *60*, 101625. https://doi.org/gngwfq

Rydén, P., Ringberg, T., & Wilke, R. (2015). How Managers' Shared Mental Models of Business–Customer Interactions Create Different Sensemaking of Social Media. *Journal of Interactive Marketing*, *31*, 1-16. https://doi.org/10.1016/j.intmar.2015.03.001

Rysman, M. (2004). Competition between Networks: A Study of the Market for Yellow Pages. *The Review of Economic Studies*, *71*(2), 483-512.

Rysman, M. (2009). The Economics of Two-Sided Markets. *Journal of Economic Perspectives*, *23*(3), 125-143.

Sabatier, V., Mangematin, V., & Rousselle, T. (2010). From Recipe to Dinner: Business Model Portfolios in the European Biopharmaceutical Industry. *Long Range Planning*, *43*(2), 431-447. https://doi.org/https://doi.org/10.1016/j.lrp.2010.02.001

Saldaña, J. (2020). Qualitative Data Analysis Strategies. In P. Leavy (Ed.), *The Oxford Handbook of Qualitative Research*. Oxford University Press. https://doi.org/10.1093/oxfordhb/9780190847388.013.33

Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., Burroughs, H., & Jinks, C. (2018). Saturation in Qualitative Research: Exploring Its Conceptualization and Operationalization. *Quality & Quantity*, *52*(4), 1893-1907. https://doi.org/10.1007/s11135-017-0574-8

Saunders, M. N. K., Lewis, P., & Thornhill, A. (2019). *Research Methods for Business Students* (8th ed.). Pearson.

Schibsted. (2000). *Annual Report 1999*. Schibsted. Retrieved from: https://schibsted.com/ir/reports-presentations-calendar/

Schibsted. (2023). *Annual Report 2022*. Schibsted. Retrieved from: https://schibsted.com/ir/reports-presentations-calendar/

Schröder, D. (2022a). *Reflections on Zalando's Development and Key Challenges* [Interview]. IMD.

Schröder, D. (2022b). *Zalando Fy/2021 Performance Deep Dive*. Zalando. Available from: https://corporate.zalando.com/en/investor-relations/financial-publications/financial-reporting/financial-year-2021

Seo, M.-G., & Creed, W. D. (2002). Institutional Contradictions, Praxis, and Institutional Change: A Dialectical Perspective. *Academy of Management Review*, *27*(2), 222-247.

Shaughnessy, H. (2016). Harnessing Platform-Based Business Models to Power Disruptive Innovation. *Strategy and Leadership*, *44*(5), 6-14. https://doi.org/10.1108/SL-07-2016-0061

Shaw, J. D. (2017). Advantages of Starting with Theory. *Academy of Management Journal*, *60*(3), 819-822. https://doi.org/10.5465/amj.2017.4003

Shepherd, D. A., & Sutcliffe, K. M. (2011). Inductive Top-Down Theorizing: A Source of New Theories of Organization. *Academy of Management Review*, *36*(2), 361-380. https://doi.org/10.5465/amr.2009.0157

Shree, D., Kumar Singh, R., Paul, J., Hao, A., & Xu, S. (2021). Digital Platforms for Business-to-Business Markets: A Systematic Review and Future Research Agenda. *Journal of Business Research*, *137*, 354-365. https://doi.org/10.1016/j.jbusres.2021.08.031

Sirmon, D. G., Hitt, M. A., & Ireland, R. D. (2007). Managing Firm Resources in Dynamic Environments to Create Value: Looking inside the Black Box. *Academy of Management Review*, *32*(1), 273-292. https://doi.org/10.5465/amr.2007.23466005

Sjödin, D., Parida, V., Jovanovic, M., & Visnjic, I. (2020). Value Creation and Value Capture Alignment in Business Model Innovation: a Process View on Outcome-Based Business Models. *Journal of Product Innovation Management*, *37*(2), 158-183. https://doi.org/10.1111/jpim.12516

Smets, M., Morris, T., & Greenwood, R. (2012). From Practice to Field: A Multilevel Model of Practice-Driven Institutional Change. *Academy of Management Journal*, *55*(4), 877-904.

Smithson, J. (2000). Using and Analysing Focus Groups: Limitations and Possibilities. *International Journal of Social Research Methodology*, *3*(2), 103-119. https://doi.org/10.1080/136455700405172

Sokol, D. D., & Van Alstyne, M. (2021). The Rising Risk of Platform Regulation. *MIT Sloan Management Review*, *62*(2), 6A-10A.

Spicer, A. (2006). Beyond the Convergence–Divergence Debate: The Role of Spatial Scales in Transforming Organizational Logic. *Organization Studies*, *27*(10), 1467-1483.

Spicer, A., & Sewell, G. (2010). From National Service to Global Player: Transforming the Organizational Logic of a Public Broadcaster. *Journal of Management Studies*, *47*(6), 913-943. https://doi.org/10.1111/j.1467-6486.2009.00915.x

Spinello, R. A. (2005). Competing Fairly in the New Economy: Lessons from the Browser Wars. *Journal of Business Ethics*, *57*(4), 343-361. https://doi.org/10.1007/s10551-005-1832-6

Spulber, D. F. (2019). The Economics of Markets and Platforms. *Journal of Economics and Management Strategy*, *28*(1), 159-172. https://doi.org/10.1111/jems.12290

Sridhar, S., Mantrala, M. K., Naik, P. A., & Thorson, E. (2011). Dynamic Marketing Budgeting for Platform Firms: Theory, Evidence, and Application. *Journal of Marketing Research*, *48*(6), 929-943. https://doi.org/10.1509/jmr.10.0035

Srinivasan, R. (2021). *Value Creation in Platforms*. Springer. https://doi.org/10.1007/978-981-16-2838-2_5

Sriram, S., Manchanda, P., Bravo, M. E., Chu, J., Ma, L., Song, M., Shriver, S., & Subramanian, U. (2015). Platforms: A Multiplicity of Research Opportunities. *Marketing Letters*, *26*(2), 141-152. https://doi.org/10.1007/s11002-014-9314-1

Statista. (2023). *Leading E-Commerce Retailers Worldwide in 2022 and 2027, Based on Estimated Sales* https://www.statista.com/statistics/1316966/e-commerce-sales-retailers-worldwide/

Statista. (2024). *Most Popular E-Commerce and Shopping Websites Worldwide in December 2023, Based on Share of Visits* https://www.statista.com/statistics/1198949/most-visited-websites-in-the-retail-sector-worldwide/

Steiner, M., Wiegand, N., Eggert, A., & Backhaus, K. (2016). Platform Adoption in System Markets: The Roles of Preference Heterogeneity and Consumer Expectations. *International Journal of Research in Marketing*, *33*(2), 276-296. https://doi.org/10.1016/j.ijresmar.2015.05.011

Stone, B. (2013). *The Everything Store: Jeff Bezos and the Age of Amazon*. Random House.

Strauss, A. L., & Corbin, J. (1998). *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory* (2nd ed.). SAGE Publications.

Suarez, F. F., & Kirtley, J. (2012). Dethroning an Established Platform. *MIT Sloan Management Review*, *53*(4), 35-41.

Sun, H., Chen, J., & Fan, M. (2021). Effect of Live Chat on Traffic-to-Sales Conversion: Evidence from an Online Marketplace. *Production and Operations Management*, *30*(5), 1201-1219. https://doi.org/10.1111/poms.13320

Sun, L., Rajiv, S., & Chu, J. (2016). Beyond the More the Merrier: The Variety Effect and Consumer Heterogeneity in System Markets. *International Journal of Research in Marketing*, *33*(2), 261-275. https://doi.org/10.1016/j.ijresmar.2015.05.010

Sun, M., & Tse, E. (2009). The Resource-Based View of Competitive Advantage in Two-Sided Markets. *Journal of Management Studies*, *46*(1), 45-64. https://doi.org/10.1111/j.1467-6486.2008.00796.x

Sur, M., Lee, D. J., & Kim, K. T. (2019). Optimal Revenue Sharing in Platform Markets: A Stackelberg Model. *Journal of Revenue and Pricing Management*, *18*(4), 317-331. https://doi.org/10.1057/s41272-018-00180-4

Sutton, T., Devine, R. A., Lamont, B. T., & R. Michael Holmes, J. (2021). Resource Dependence, Uncertainty, and the Allocation of Corporate Political Activity across Multiple Jurisdictions. *Academy of Management Journal*, *64*(1), 38-62. https://doi.org/10.5465/amj.2017.1258

Sætre, A. S., & Van de Ven, A. (2021). Generating Theory by Abduction. *Academy of Management Review*, *46*(4), 684-701. https://doi.org/10.5465/amr.2019.0233

Saadatmand, F., Lindgren, R., & Schultze, U. (2019). Configurations of Platform Organizations: Implications for Complementor Engagement. *Research Policy*, *48*(8), Article 103770. https://doi.org/10.1016/j.respol.2019.03.015

Taeuscher, K. (2019). Uncertainty Kills the Long Tail: Demand Concentration in Peer-to-Peer Marketplaces. *Electronic Markets*, *29*(4), 649-660. https://doi.org/10.1007/s12525-019-00339-w

Taeuscher, K., & Rothe, H. (2021). Optimal Distinctiveness in Platform Markets: Leveraging Complementors as Legitimacy Buffers. *Strategic Management Journal*, *42*(2), 435-461. https://doi.org/10.1002/smj.3229

Tavalaei, M. M., & Cennamo, C. (2020). In Search of Complementarities within and across Platform Ecosystems: Complementors' Relative Standing and Performance in Mobile Apps Ecosystems. *Long Range Planning*, *54*(5), Article 101994. https://doi.org/10.1016/j.lrp.2020.101994

Tee, R., & Gawer, A. (2009). Industry Architecture as a Determinant of Successful Platform Strategies: A Case Study of the I-Mode Mobile Internet Service. *European Management Review*, *6*(4), 217-232. https://doi.org/10.1057/emr.2009.22

Teece, D. J. (2007). Explicating Dynamic Capabilities: The Nature and Microfoundations of (Sustainable) Enterprise Performance. *Strategic Management Journal*, *28*(13), 1319-1350. https://doi.org/10.1002/smj.640

Teece, D. J. (2010). Business Models, Business Strategy and Innovation. *Long Range Planning*, *43*(2-3), 172-194.

Teece, D. J. (2017). Dynamic Capabilities and (Digital) Platform Lifecycles. *Advances in Strategic Management*, *37*, 211-225. https://doi.org/gcv95f

Teece, D. J. (2018a). Business Models and Dynamic Capabilities. *Long Range Planning*, *51*(1), 40-49. https://doi.org/10.1016/j.lrp.2017.06.007

Teece, D. J. (2018b). Profiting from Innovation in the Digital Economy: Enabling Technologies, Standards, and Licensing Models in the Wireless World. *Research Policy*, *47*(8), 1367-1387. https://doi.org/10.1016/j.respol.2017.01.015

Teece, D. J., Pundziene, A., Heaton, S., & Vadi, M. (2022). Managing Multi-Sided Platforms: Platform Origins and Go-to-Market Strategy. *California Management Review*, *64*(4), 5-19. https://doi.org/10.1177/00081256221109961

Tellis, G. J., Yin, E., & Niraj, R. (2009). Does Quality Win? Network Effects Versus Quality in High-Tech Markets. *Journal of Marketing Research*, *46*(2), 135-149.

Thomas, L. D. W., Autio, E., & Gann, D. M. (2014). Architectural Leverage: Putting Platforms in Context. *Academy of Management Perspectives*, *28*(2), 198-219. https://doi.org/10.5465/amp.2011.0105

Thomas, M., Le Masson, P., Weil, B., & Legrand, J. (2021). The Future of Digital Platforms: Conditions of Platform Overthrow. *Creativity and Innovation Management*, *30*(1), 80-95. https://doi.org/10.1111/caim.12422

Thornton, P. H., & Ocasio, W. (1999). Institutional Logics and the Historical Contingency of Power in Organizations: Executive Succession in the Higher Education Publishing Industry, 1958 - 1990. *American Journal of Sociology*, *105*(3), 801-843. https://doi.org/10.1086/210361

Thornton, P. H., Ocasio, W., & Lounsbury, M. (2012). *The Institutional Logics Perspective: A New Approach to Culture, Structure and Process*. Oxford University Press.

Tiwana, A., Konsynski, B., & Bush, A. A. (2010). Research Commentary—Platform Evolution: Coevolution of Platform Architecture, Governance, and Environmental Dynamics. *Information Systems Research*, *21*(4), 675-687.

Toh, P. K., & Agarwal, S. (2022). The Option Value in Complements within Platform-Based Ecosystems. *Strategic Management Journal*, *44*(2), 576-609. https://doi.org/10.1002/smj.3448

Trabucchi, D., & Buganza, T. (2020). Fostering Digital Platform Innovation: From Two to Multi-Sided Platforms. *Creativity and Innovation Management*, *29*(2), 345-358. https://doi.org/10.1111/caim.12320

Trabucchi, D., & Buganza, T. (2021). Landlords with No Lands: A Systematic Literature Review on Hybrid Multi-Sided Platforms and Platform Thinking. *European Journal of Innovation Management*. https://doi.org/10.1108/EJIM-11-2020-0467

Trabucchi, D., Buganza, T., Muzellec, L., & Ronteau, S. (2021a). Platform-Driven Innovation: Unveiling Research and Business Opportunities. *Creativity and Innovation Management*, *30*(1), 6-11. https://doi.org/10.1111/caim.12428

Trabucchi, D., Buganza, T., & Verganti, R. (2021b). Quantity or Quality? Value Creation in Two-Sided Platforms. *Technology Analysis & Strategic Management*, *33*(2), 162-175. https://doi.org/10.1080/09537325.2020.1804057

Trabucchi, D., Moretto, A., Buganza, T., & MacCormack, A. (2020). Disrupting the Disruptors or Enhancing Them? How Blockchain Reshapes Two-Sided Platforms. *Journal of Product Innovation Management*, *37*(6), 552-574. https://doi.org/10.1111/jpim.12557

Trabucchi, D., Muzellec, L., Ronteau, S., & Buganza, T. (2021c). The Platforms' DNA: Drivers of Value Creation in Digital Two-Sided Platforms. *Technology Analysis & Strategic Management*, 1-14. https://doi.org/10.1080/09537325.2021.1932797

Trabucchi, D., Sanasi, S., Ghezzi, A., & Buganza, T. (2021d). Idle Asset Hunters—the Secret of Multi-Sided Platforms. *Research-Technology Management*, *64*(1), 33-42. https://doi.org/10.1080/08956308.2021.1842677

Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a Methodology for Developing Evidence-Informed Management Knowledge by Means of Systematic Review. *British Journal of Management*, *14*(3), 207-222. https://doi.org/10.1111/1467-8551.00375

Tuli, K. R., Kohli, A. K., & Bharadwaj, S. G. (2007). Rethinking Customer Solutions: From Product Bundles to Relational Processes. *Journal of Marketing*, *71*(3), 1-17. https://doi.org/10.1509/jmkg.71.3.001

Tunarosa, A., & Glynn, M. A. (2017). Strategies of Integration in Mixed Methods Research:Insights Using Relational Algorithms. *Organizational Research Methods*, *20*(2), 224-242. https://doi.org/10.1177/1094428116637197

Tura, N., Kutvonen, A., & Ritala, P. (2018). Platform Design Framework: Conceptualisation and Application. *Technology Analysis and Strategic Management*, *30*(8), 881-894. https://doi.org/10.1080/09537325.2017.1390220

Täuscher, K., & Laudien, S. M. (2018). Understanding Platform Business Models: A Mixed Methods Study of Marketplaces. *European Management Journal*, *36*(3), 319-329. https://doi.org/10.1016/j.emj.2017.06.005

Vakeel, K. A., Fudurić, M., & Malthouse, E. C. (2021). Extending Variety Seeking to Multi-Sided Platforms: Impact of New Retailer Listing. *Journal of Retailing and Consumer Services*, *59*, 102382. https://doi.org/10.1016/j.jretconser.2020.102382

Van Alstyne, M. W., Parker, G. G., & Choudary, S. P. (2016). Pipelines, Platforms, and the New Rules of Strategy. *Harvard Business Review*, *94*(4), 54-62.

Veisdal, J. (2020). The Dynamics of Entry for Digital Platforms in Two-Sided Markets: A Multi-Case Study. *Electronic Markets*. https://doi.org/10.1007/s12525-020-00409-4

Vogt, Y. (2022). Usikkerhet Gir Bedre Anbefalinger. *Forskningsmagasinet Apollon*. https://www.apollon.uio.no/artikler/2022/2_usikkerhet.html

von Hippel, E. (1986). Lead Users: A Source of Novel Product Concepts. *Management Science*, *32*(7), 791-805.

Wallbach, S., Coleman, K., Elbert, R., & Benlian, A. (2019). Multi-Sided Platform Diffusion in Competitive B2b Networks: Inhibiting Factors and Their Impact on Network Effects. *Electronic Markets*, *29*(4), 693-710. https://doi.org/10.1007/s12525-019-00382-7

Wamba, S. F., Gunasekaran, A., Akter, S., Ren, S. J.-f., Dubey, R., & Childe, S. J. (2017). Big Data Analytics and Firm Performance: Effects of Dynamic Capabilities. *Journal of Business Research*, *70*, 356-365. https://doi.org/10.1016/j.jbusres.2016.08.009

Wan, X., & Chen, J. (2019). The Relationship between Platform Choice and Supplier's Efficiency- Evidence from China's Online to Offline (O2o) E-Commerce Platforms. *Electronic Markets*, *29*(2), 153-166. https://doi.org/10.1007/s12525-017-0280-3

Wang, C. L., & Chugh, H. (2014). Entrepreneurial Learning: Past Research and Future Challenges. *International Journal of Management Reviews*, *16*(1), 24-61. https://doi.org/10.1111/ijmr.12007

Wang, R. D., & Miller, C. D. (2020). Complementors' Engagement in an Ecosystem: A Study of Publishers' E-Book Offerings on Amazon Kindle. *Strategic Management Journal*, *41*(1), 3-26. https://doi.org/10.1002/smj.3076

Weking, J., Mandalenakis, M., Hein, A., Hermes, S., Böhm, M., & Krcmar, H. (2020). The Impact of Blockchain Technology on Business Models – a Taxonomy and Archetypal Patterns. *Electronic Markets*, *30*(2), 285-305. https://doi.org/10.1007/s12525-019-00386-3

Wellman, N., Tröster, C., Grimes, M., Roberson, Q., Rink, F., & Gruber, M. (2023). Publishing Multimethod Research in Amj: A review and Best-Practice Recommendations. *Academy of Management Journal*, *66*(4), 1007-1015. https://doi.org/10.5465/amj.2023.4004

Wen, W., & Zhu, F. (2019). Threat of Platform-Owner Entry and Complementor Responses: Evidence from the Mobile App Market. *Strategic Management Journal*, *40*(9), 1336-1367. https://doi.org/10.1002/smj.3031

West, J. (2003). How Open Is Open Enough?: Melding Proprietary and Open Source Platform Strategies. *Research Policy*, *32*(7), 1259-1285.

Wichmann, J. R. K., Wiegand, N., & Reinartz, W. J. (2022). The Platformization of Brands. *Journal of Marketing*, *86*(1), 109-131. https://doi.org/10.1177/00222429211054073

Wiengarten, F., Humphreys, P., Cao, G., & McHugh, M. (2013). Exploring the Important Role of Organizational Factors in It Business Value: Taking a Contingency Perspective on the Resource-Based View. *International Journal of Management Reviews*, *15*(1), 30-46. https://doi.org/10.1111/j.1468-2370.2012.00332.x

Williamson, O. E. (1975). *Markets and Hierarchies: Analysis and Antitrust Implications*. Free Press.

Williamson, O. E. (1985). *Economic Institutions of Capitalism*. Free Press.

Willing, C., Brandt, T., & Neumann, D. (2017). Electronic Mobility Market Platforms – a Review of the Current State and Applications of Business Analytics. *Electronic Markets*, *27*(3), 267-282. https://doi.org/10.1007/s12525-017-0257-2

Wind, J. Y. (2009). Rethinking Marketing: Peter Drucker's Challenge. *Journal of the Academy of Marketing Science*, *37*(1), 28.

Winter, J., Battisti, S., Burström, T., & Luukkainen, S. (2018). Exploring the Success Factors of Mobile Business Ecosystems. *International Journal of Innovation and Technology Management*, *15*(3), Article 1850026. https://doi.org/10.1142/S0219877018500268

Wirtz, J., So Kevin Kam, F., Mody Makarand, A., Liu Stephanie, Q., & Chun HaeEun, H. (2019). Platforms in the Peer-to-Peer Sharing Economy. *Journal of Service Management*, *30*(4), 452-483. https://doi.org/10.1108/JOSM-11-2018-0369

Wood, G., & Peel, D. (Eds.). (2018). *Academic Journal Guide 2018*. Chartered Association of Business Schools.

Worren, N. A., Moore, K., & Elliott, R. (2002). When Theories Become Tools: Toward a Framework for Pragmatic Validity. *Human Relations*, *55*(10), 1227-1250. https://doi.org/10.1177/a028082

Wulfert, T., Woroch, R., Strobel, G., Seufert, S., & Möller, F. (2022). Developing Design Principles to Standardize E-Commerce Ecosystems. *Electronic Markets*. https://doi.org/10.1007/s12525-022-00558-8

Xiao, L., Zhang, Y., & Fu, B. (2019). Exploring the Moderators and Causal Process of Trust Transfer in Online-to-Offline Commerce. *Journal of Business Research*, *98*, 214-226. https://doi.org/10.1016/j.jbusres.2019.01.069

Yablonsky, S. A. (2016). Multi-Sided Search Platforms: Global and Local. *International Journal of Technology Marketing*, *11*(3), 319-343. https://doi.org/10.1504/ijtmkt.2016.077394

Yang, G., & Wang, R. (2013). The Institutionalization of an Electronic Marketplace in China, 19982010. *Journal of Product Innovation Management*, *30*(1), 96-109. https://doi.org/10.1111/j.1540-5885.2012.00989.x

Yang, Z., Diao, Z., & Kang, J. (2020). Customer Management in Internet-Based Platform Firms: Review and Future Research Directions. *Marketing Intelligence and Planning*, *38*, 957-973. https://doi.org/10.1108/MIP-01-2020-0012

Ye, G., Priem, R. L., & Alshwer, A. A. (2012). Achieving Demand-Side Synergy from Strategic Diversification: How Combining Mundane Assets Can Leverage Consumer Utilities. *Organization Science*, *23*(1), 207-224.

Yin, R. K. (2018). *Case Study Research and Applications: Design and Methods* (6th ed.). SAGE.

Yoffie, D. B., Gawer, A., & Cusumano, M. A. (2019). A Study of More Than 250 Platforms a Reveal Why Most Fail. *Harvard Business Review*.

Yrjölä, M., Rintamäki, T., Saarijärvi, H., & Joensuu, J. (2017). Consumer-to-Consumer E-Commerce: Outcomes and Implications. *International Review of Retail, Distribution and Consumer Research*, *27*(3), 300-315. https://doi.org/10.1080/09593969.2017.1314864

Yu, X., Li, Y., Chen, D. Q., Meng, X., & Tao, X. (2019). Entrepreneurial Bricolage and Online Store Performance in Emerging Economies. *Electronic Markets*, *29*(2), 167-185. https://doi.org/10.1007/s12525-018-0302-9

Zahra, S. A., & Nambisan, S. (2012). Entrepreneurship and Strategic Thinking in Business Ecosystems. *Business Horizons*, *55*(3), 219-229. https://doi.org/10.1016/j.bushor.2011.12.004

Zalando. (2021). *Annual Report 2021*. Zalando. Retrieved from: https://corporate.zalando.com/en/investor-relations/annual-report-2021

Zalando. (2022). *Annual Report 2022*. Zalando. Retrieved from: https://corporate.zalando.com/en/investor-relations/annual-report-2022

Zalando. (2024). *Connected Retail by Zalando: The Incremental Assortment Opportunity*. Retrieved 02/09/2024 from https://www.connected-retail.com/articles/4901

Zaltman, G., LeMasters, K., & Heffring, M. (1982). *Theory Construction in Marketing: Some Thoughts on Thinking*. John Wiley & Sons.

Zeithaml, V. A., Jaworski, B. J., Kohli, A. K., Tuli, K. R., Ulaga, W., & Zaltman, G. (2020). A Theories-in-Use Approach to Building Marketing Theory. *Journal of Marketing*, *84*(1), 32-51. https://doi.org/10.1177/0022242919888477

Zeng, J., & Glaister, K. W. (2016). Competitive Dynamics between Multinational Enterprises and Local Internet Platform Companies in the Virtual Market in China. *British Journal of Management*, *27*(3), 479-496. https://doi.org/10.1111/1467-8551.12136

Zervas, G., Proserpio, D., & Byers, J. W. (2017). The Rise of the Sharing Economy: Estimating the Impact of Airbnb on the Hotel Industry. *Journal of Marketing Research*, *54*(5), 687-705. https://doi.org/10.1509/jmr.15.0204

Zhang, J., Balaji, M. S., Luo, J., & Jha, S. (2022). Effectiveness of Product Recommendation Framing on Online Retail Platforms. *Journal of Business Research*, *153*, 185-197. https://doi.org/10.1016/j.jbusres.2022.08.006

Zhang, S., & Tang, T. (2019). Managing Same-Side and Cross-Side Innovations in Two-Sided Platforms. *Marketing Intelligence and Planning*, *37*(7), 770-790. https://doi.org/10.1108/MIP-03-2019-0156

Zhang, X., Luo, J., & Li, Q. (2012). Do Different Reputation Systems Provide Consistent Signals of Seller Quality: A Canonical Correlation Investigation of Chinese C2c Marketplaces. *Electronic Markets*, *22*(3), 155-168.

Zhang, Y., Li, J., & Tong, T. W. (2020). Platform Governance Matters: How Platform Gatekeeping Affects Knowledge Sharing among Complementors. *Strategic Management Journal*. https://doi.org/10.1002/smj.3191

Zhao, Y., von Delft, S., Morgan-Thomas, A., & Buck, T. (2019). The Evolution of Platform Business Models: Exploring Competitive Battles in the World of Platforms. *Long Range Planning*, Article 101892. https://doi.org/10.1016/j.lrp.2019.101892

Zhu, F. (2019). Friends or Foes? Examining Platform Owners' Entry into Complementors' Spaces. *Journal of Economics and Management Strategy*, *28*(1), 23-28. https://doi.org/10.1111/jems.12303

Zhu, F., & Iansiti, M. (2012). Entry into Platform-Based Markets. *Strategic Management Journal*, *33*(1), 88-106. https://doi.org/10.1002/smj.941

Zhu, F., & Liu, Q. (2018). Competing with Complementors: An Empirical Look at Amazon.Com. *Strategic Management Journal*, *39*(10), 2618-2642. https://doi.org/10.1002/smj.2932

Zott, C., & Amit, R. (2010). Business Model Design: An Activity System Perspective. *Long Range Planning*, *43*(2), 216-226. https://doi.org/10.1016/j.lrp.2009.07.004

Zott, C., Amit, R., & Massa, L. (2011). The Business Model: Recent Developments and Future Research. *Journal of Management*, *37*(4), 1019-1042. https://doi.org/10.1177/0149206311406265

Appendices

Appendix 1: Conceptualizations and reviews of digital platforms

Author	Title	Year	Platform type	Focus areas	Selected studies	Journals
Conceptualization and review of digital platforms						
Thomas, L.D.W., Autio, E., Gann, D.M.	Architectural leverage: Putting platforms in context	2014	Platform organization	Corporate strategy	Ciborra (1996), Kim and Kogut (1996), Kogut and Kulatilaka (1994)	Organization Science, Harvard Business Review, Long Range Planning, International Review of Technology Management
			Product platforms (product family)	Product development	Meyer and Lehnerd (1997), Meyer and Utterback (1993), Robertson and Ulrich (1998)	Journal of Product Innovation Management, Internal Journal of Production Research, MIT Sloan Management Review
			Multisided platform (market intermediary)	Industrial economics	Armstrong (2006), Caillaud and Jullien (2003), Rochet and Tirole (2002, 2003, 2006)	RAND Journal of Economics, Journal of Industrial Economics, Journal of the European Economic Association, International Journal of Industrial Organization
			Industry platform (platform ecosystem)	Technology strategy	Bresnahan and Greenstein (1999), Gawer and Cusumano (2002), Gawer and Henderson (2007), West (2003)	Research Policy, Technovation, Journal of Industrial Economics, Journal of Economics and Management Strategy, MIT Sloan Management Review
Sriram, S., Manchanda, P., Bravo, M.E., Chu, J., Ma, L., Song, M., Shriver, S., Subramanian, U.	Platforms: a multiplicity of research opportunities	2015	Exchange platform (facilitate transactions between buyer/seller)	Theoretical: Cross-group externalities, network coordination and balancing of demand Empirical: Network effects, platform decisions, market outcome and policy implications	Rochet and Tirole (2003), Armstrong (2006), Resnick and Zeckhauser (2002), Caillaud and Jullien (2003), Resnick et al. (2006), Rysman (2004, 2009), Hagiu (2006), Wilbur (2008)	Journal of the European Economic Association, RAND Journal of Economics, Advances in Applied Microeconomics, Journal of Economic Perspectives, Marketing Science
			Advertising-supported media platform (television and newspapers)			
			Transaction system platform (payment cards)			
			Hardware/software platforms (video game consoles)			
McIntyre, D.P., Srinivasan, A.	Networks, platforms, and strategy: Emerging views and next steps	2017	Platform-mediated networks (video games, enterprise software, and online social networks)	Industrial organization (IO) economics	Caillaud and Julian (2003), Evans (2003), Rochet and Tirole (2003, 2006), Parker and Van Alstyne (2005)	RAND Journal of Economics, Review of Network Economics, Journal of the European Economic Association, Management Science
				Technology management	Gawer and Cusumano (2008), Tee and Gawer (2009), Tiwana et al. (2010), Gawer 2014)	Sloan Management Review, Platforms, Markets and innovation, European Management Review, Information Systems Research, Research Policy
				Strategic management	Venkatraman and Lee (2004), Eisenmann, Parker, and Van Alstyne (2011), Zhu and Iansiti (2012), Cennamo and Santalo (2013), Boudreau and Jeppesen (2015)	Academy of Management Journal, Strategic Management Journal

Author	Title	Year	Platform type	Focus areas	Selected studies	Journals
Hänninen, M.	Review of studies on digital transaction platforms in marketing journals	2019	Digital transaction platforms -B2C Platforms	Marketing theory (customer behavior and firm performance) and managerial implications (strategic and tactical choices)	Ramaswamy and Ozcan (2018), Mathmann et al. (2017), Jiang et al. (2011)	Journal of Marketing, Journal of Retailing, Marketing Science, Journal of Marketing Research, Industrial Marketing Management
			-C2C Platforms		Perren and Kozinetz (2018), Wu et al. (2018), Chu and Manchanda (2016)	
			-B2B Platforms		Li et al. (2018), Perks et al. (2017), Fang et al. (2015)	
Yang, Z., Diao, Z., Kang, J.	Customer management in Internet-based platform firms: review and future research directions	2020	Exchanges platform (facilitate transactions between buyer/seller)	Market-maker view: does not differentiate between platform types	Armstrong (2006), Berger and Milkman (2012), Gawer and Cusumano (2002), Srivasta et al. (1999), Tiwana et al. (2010), Rust et al (2004), Parker et al. (2016), Berger (2014), Rosario et al. (2016), Grewal et al. (2001).	RAND Journal of Economics, Journal of Marketing Research, Journal of Marketing, Information Systems Research, Strategic Management Journal
			Advertising-supported media platform (television and newspapers)			
			Payment systems			
			Software platforms			
Jia, X., Cusumano, M.A., Chen, J.	An Analysis of Multi-Sided Platform Research Over the Past Three Decades: Framework and Discussion	2019 Working paper draft	Functional platforms: Product platform/product development platform Knowledge-sharing platforms	*Excluded from the study*	Rochet and Tirole (2003, 2006), Armstrong (2006), Schmalensee (2002), Wright (2004), Rysman (2004), Caillaud and Jullien (2003), Sun and Tse (2007), Eisenmann, Parker, and Van Alstyne (2006), Gawer (2014), Gawer and Cusumano (2014), Parker, Van Alstyne and Choudary (2016), Zhu and Iansiti (2012).	RAND Journal of Economics, Strategic Management Journal, Journal of the European Economic Association, Journal of Product Innovation Management, Research Policy, Journal of Industrial Economics, Harvard Business Review, journal of Product Innovation Management
			Inter-organizational platforms: Supply-chain platforms Non-profit service platforms	*Excluded from the study*		
			Industry platforms: Multi-sided platform	Industrial organization (IO) economics Network externalities/network effects		
Gawer, A., Cusumano, M.A.	Industry Platforms and Ecosystem Innovation	2014	Internal platforms (company-specific platforms): -Product development platforms -Supply chain platforms	Product design	Wheelwright and Clark (1992), McGrath (1995), Robertson and Ulrich (1998), Pine (1993), Baldwin and Clark (2000), Baldwin and Woodard (2009)	Sloan Management Review, Harvard Business Review, Product Strategy for High-Technology Companies, Design Rules: The Power of Modularity, Mass Customization: The New Frontier in Business Competition
			External platforms (industry-wide platforms)	Industrial organization economics	West (2003), Iansiti and Levien (2004), Gawer and Henderson (2007), Gawer and Cusumano (2002, 2008), Boudreau (2012), Evans (2003. 2009), Rochet and Tirole (2003, 2006), Armstrong (2006), Caillaud and Jullien (2003), Hagiu (2006) Parker and Val Alstyne (2005)	Research Policy, Journal of Economics and Management Strategy, RAND Journal of Economics, Journal of the European Economic Association, Harvard Business Review, Management Science

Author	Title	Year	Platform type	Focus areas	Selected studies	Journals
Conceptual w/o review						
Cusumano, M.A., Gawer, A., Yoffie, D.B.	The Business of Platform: Strategy in the Age of Digital Competition, Innovation, and Power	2019	Industry platforms:			
			Innovation platforms	the value of the platform increases with each additional complement, such as software application, which the platform owner or outside firms can produce.		"common technological building blocks that the platform owner and ecosystem partners can share in order to create "complementary" poducts and services"
			Transaction platforms	Connect two or more market sides for the purpose of linking buyers and sellers, exchanging information, or arranging for purchase or rental of a product or services.		"largely intermediaries or online marketplaces that make it possible for millions of people or organizations to share information or to access or buy and sell a variety of goods and services"
			Hybrid strategy (innovation + transaction platform)	both innovation and transaction platforms and benefit from connecting different types of platform businesses		
Cusumano, M.A.	Guidepost: The Evolution of Research on Industry Platforms	2020	Uses the three platform types as in "The Business of Platforms"			

Appendix 2: List of definitions or descriptions of platforms

Author(s)	Definition or description of platform
Berman et al. (2018)	Platforms enable interactions between economic agents – for example, communication engagement, collaboration and transactions. Platforms are an integral part of most business ecosystems.
Blondel and Edouard (2015)	A platform is a combination of components and services, both standardized and complementary, which ensures the coordination between buyers and vendors. A platform combines physical elements, rules, and standards as a means of guaranteeing interoperation. It is technically developed by a company (the "sponsor") in order to benefit from the flux of transactions that develop between customers and sellers.
Boudreau and Jeppesen (2015)	Multi-sided platforms, unlike traditional businesses organized with upstream suppliers and downstream buyers, facilitate value-creating interactions among platform participants that might include users on one side and various suppliers of complementary goods and services on the other. The prevailing characterization of platforms in the literature is as a multi-sided market in which complementors selling to users can generate cross-platform or "indirect" network effects
Cenamor et al. (2019)	Digital platforms are technologies that allow firms to homogenize, edit, and distribute data on an unprecedented scale. For example, new devices and software (e.g., advanced machinery) and network standards (e.g., peer-to-peer protocols) enable new features to emerge. Digital platforms are thereby transforming the way firms build a competitive advantage. In fact, digital platforms play a central role in many firms' value propositions by enabling them to leverage information management.
Cennamo (2018)	A technological platform is a stable set of technological components that are shared and reused by developers of diverse complements.
Crittenden et al. (2017)	The transaction platform creates a multisided marketplace and facilitates exchanges between buyers and sellers; thus, closely resembling the channel of distribution.
Cusumano et al. (2019)	A platform business is an entity that brings together individuals and organizations so they can innovate or interact in ways not otherwise possible, with potential for nonlinear increases in utility and value.
Cusumano (2012)	An industry-wide platform as a foundation technology (or service) that brings multiple parties in a market together for a common purpose

Author(s)	Definition or description of platform
Eckhardt et al. (2019)	A scalable socioeconomic system that employs technology-enabled platforms to provide users with temporary access to tangible and intangible resources that may be crowdsourced.
Eisenmann et al. (2006)	Products and services that bring together groups of users in two-sided networks are platforms. They provide infrastructure and rules that facilitate the two groups' transactions and can take many guises.
Evans (2003a)	A platform can increase social surplus when three necessary conditions are met: (1) There are two or more distinct groups of customers, (2) There are externalities associated with customers A and B becoming connected or coordinated in some fashion, (3) An intermediary is necessary to internalize the externalities created by one group for the other group.
Fürstenau et al. (2019)	Multi-sided platforms facilitate coordination, interactions and exchanges between heterogeneous actor constellations regulated by participation rules.
Gawer (2014)	Technological platforms can be usefully seen as evolving organizations or meta- organizations that: (1) federate and coordinate constitutive agents who can innovate and compete; (2) create value by generating and harnessing economies of scope in supply or/and in demand; and (3) entail a technological architecture that is modular and composed of a core and a periphery.
Gawer and Cusumano (2014)	Products, services, or technologies developed by one or more firms, and which serve as foundations upon which a larger number of firms can build further complementary innovations and potentially generate network effects.
Gawer and Henderson (2007)	We define a product as a “platform” when it is one component or subsystem of an evolving technological system (...)
Gazé and Vaubourg (2011)	Two-sided markets in which two groups of agents – sellers and buyers – can switch from one side of the market to the other

Author(s)	Definition or description of platform
Hagiu (2014)	Multisided platforms are technologies, products or services that create value primarily by enabling direct interactions between two or more customer or participant groups.
Hagiu and Wright (2015)	We believe that at the most fundamental level, MSPs have two key features beyond any other requirements (such as indirect network effects or non-neutrality of fees): (1) They enable direct interactions between two or more distinct sides. (2)
Hein et al. (2020)	A digital platform ecosystem comprises a platform owner that implements governance mechanisms to facilitate value creating mechanisms on a digital platform between the platform owner and an ecosystem of autonomous complementors and
McIntyre and Srinivasan (2017)	Digital transaction platforms are defined as platforms that intermediate transactions among firms and/or individuals that may not be able to transact otherwise.
McIntyre et al. (2020)	Platforms are interfaces – frequently embodied in products, services or technologies – that serve to mediate interactions among participants, often among two or more distinct sides, such as networks of buyers and sellers or users and complementors.
Parker et al. (2016)	Platforms are digital intermediaries that efficiently link external producers/sellers to consumers, thereby enabling value-creating interactions. Their purpose is to facilitate the exchange of goods, services, or social currency
Perks et al. (2017)	A "Value platform" is a dynamic configuration of (tanglible and intangible) resoures that act as a foundation upon which network members co-create value through a set of specific practices.
Perren and Kozinets (2018)	We define a lateral exchange market (LEM) as a market that is formed through an intermediating technology platform that facilitates exchange activities among a network of equivalently positioned economic actors.

Author(s)	Definition or description
Ramaswamy and Ozcan (2018a)	A digitalized interactive platform (DIP) is an evolving digitalized networked arrangement of artifacts, persons, processes, and interfaces
Rochet and Tirole (2006)	Platforms enable interactions between end-users and try to get the two (or multiple) sides “on board” by appropriately charging each side. That is, platforms court each side while attempting to make, or at least not lose, money overall.
Sriram et al. (2015)	Platforms refer to intermediaries that facilitate economic interaction between two sets of agents wherein the decisions of one set of agents are likely to have an effect on the other via direct and/or indirect externalities.
Suarez and Kirtley (2012)	A platform is a good or system providing a technological architecture that allows different types of users and complementary business partners (often called "complementors") to connect and benefit from the platform's base functionality
Teece (2018)	A platform is any combination of hardware and software that provides standards, interfaces, and rules that enable and allow providers of complements to add value and interact with each other and/or users.
Zeng and Glaister (2016)	Those that are established with the primary focus to provide infrastructure, information and technology that enable direct transaction or value creation over the web-based virtual platform by linking markets from different groups of users and that extract a significant proportion of their revenue from the transaction. (Based on Armstrong (2006) and Rochet and Tirole (2003)).

Appendix 3: Search syntax, used in SCOPUS database

Search string: 1,857 results, 196 journals:

((TITLE-ABS-KEY(platform) AND ISSN(1526-1794 OR 0098-9258 OR 1474-7979 OR 1441-3582 OR 1025-3866 OR 1356-3289 OR 1363-3589 OR 1019-6781 OR 0309-0566 OR 0735-9683 OR 0019-8501 OR 0265-0487 OR 0265-2323 OR 1470-6423 OR 1477-5212 OR 1470-7853 OR 1479-103X OR 0167-8116 OR 0959-0552 OR 0265-1335 OR 1865-1984 OR 0959-3969 OR 0091-3367 OR 0021-8499 OR 1350-231X OR 0885-8624 OR 1051-712X OR 1363-254X OR 0022-0078 OR 1472-0817 OR 0736-3761 OR 1057-7408 OR 0093-5301 OR 1477-6421 OR 1361-2026 OR 1363-0539 OR 0891-1762 OR 1094-9968 OR 1069-031X OR 0276-1467 OR 0022-2429 OR 1046-669x OR 1352-7266 OR 0884-1241 OR 0267-257X OR 0022-2437 OR 1069-6679 OR 1049-5142 OR 0885-3134 OR 1061-0421 OR 1062-726X OR 0743-9156 OR 2040-7122 OR 0022-4359 OR 0969-6989 OR 0887-6045 OR 2042-6763 OR 0965-254X OR 0092-0703 OR 0263-4503 OR 0923-0645 OR 0732-2399 OR 1470-5931 OR 0742-6046 OR 1352-2752 OR 1570-7156 OR 1546-5616 OR 1533-2969 OR 1524-5004 OR 1747-3616 OR 0143-2095 OR 2042-5791 OR 0024-6301 OR 1476-1270 OR 0742-3322 OR 1058-6407 OR 1086-1718 OR 0953-7325 OR 0955-6419 OR 1463-6689 OR 1947-8569 OR 0275-6668 OR 1469-7017 OR 2055-5636 OR 1755-425X OR 1331-0194 OR 1087-8572 OR 0048-7333 OR 0737-6782 OR 0033-6807 OR 0166-4972 OR 0963-1690 OR 1366-2716 OR 1447-9338 OR 1363-9196 OR 0923-4748 OR 1047-8310 OR 0892-9912 OR 0810-9028 OR 0895-6308 OR 2243-4690 OR 0162-2439 OR 0138-9130 OR 0306-3127 OR 0954-349X OR 1976-1597 OR 1460-1060 OR 1751-0260 OR 1368-275X OR 1740-2816 OR 0219-8770 OR 1741-8194 OR 1740-2832 OR 1474-2748 OR 1468-4322 OR 1741-5284 OR 2046-3383 OR 2213-7149 OR 1751-1577 OR 2053-4620 OR 0001-4273 OR 0363-7425 OR 0001-8392 OR 0149-2063 OR 1941-6520 OR 1045-3172 OR 1052-150X OR 0022-2380 OR 1558-9080 OR 0007-6503 OR 0008-1256 OR 1740-4754 OR 0891-2432 OR 0968-6673 OR 0017-8012 OR 1460-8545 OR 0167-4544 OR 0148-2963 OR 1056-4926 OR 1532-9194 OR 2332-2373 OR 0312-8962 OR 1469-3569 OR 0962-8770 OR 0007-6813 OR 0825-0383 OR 1024-5294 OR 0955-534X OR 1350-5068 OR 0263-2373 OR 1354-5701 OR 0141-7789 OR 2321-029X OR 1741-802X OR 1756-6266 OR 0020-8825 OR 0306-3070 OR 1469-1930 OR 1833-3672 OR 1476-6930 OR 0025-1747 OR 1861-9908 OR 1863-6683 OR 0956-5221 OR 1439-2917 OR 0360-0025 OR 0097-9740 OR 0277-2027 OR 2331-1975 OR 1580-0466 OR 0261-0159 OR 1309-4297 OR 0955-808X OR 0964-9425 OR 0972-1509 OR 1447-9524 OR 1462-4621 OR 1741-8143 OR 2304-1366 OR 1753-8378 OR 2008-7055 OR 1649-248X OR 1746-9678 OR 1470-5001 OR 2075-6291 OR 1385-3457 OR 1476-6086 OR 2040-8269 OR 1368-3047 OR 1541-6518 OR 1477-3996 OR 0961-7353 OR 0129-5977 OR 2044-4087 OR 1593-0319 OR 2198-2627))) AND (marketplace OR two-sided OR multi-sided OR complementor OR ecosystem OR intermediation OR intermediary OR retailing) AND ORIG-LOAD-DATE < 20220917

Appendix 4: List of sample in literature review

Authors	Title	Year	Source title
Abdelkafi, N., Raasch, C., Roth, A., Srinivasan, R.	Multi-sided platforms	2019	Electronic Markets
Adner, R.	Ecosystem as Structure: An Actionable Construct for Strategy	2016	Journal of Management
Alt, R., Klein, S.	Twenty years of electronic markets research - Looking backwards towards the future	2011	Electronic Markets
Alt, R., Zimmermann, H.-D.	Electronic Markets on platform competition	2019	Electronic Markets
Altıntaş, M.H., Kılıç, S., Akhan, C.E.	The transformation of the e-tailing field: a bibliometric analysis	2019	International Journal of Retail and Distribution Management
Altman, E.J., Tushman, M.L.	Platforms, open/user innovation, and ecosystems: A strategic leadership perspective	2017	Advances in Strategic Management
Basaure, A., Vesselkov, A., Töyli, J.	Internet of things (IoT) platform competition: Consumer switching versus provider multihoming	2019	Technovation
Bazarhanova, A., Yli-Huumo, J., Smolander, K.	From platform dominance to weakened ownership: how external regulation changed Finnish e-identification	2019	Electronic Markets
Belleflamme, P., Peitz, M.	Managing competition on a two-sided platform	2019	Journal of Economics and Management Strategy
Berman, S., Davidson, S., Ikeda, K., Marshall, A.	Navigating disruption with ecosystems, partners and platforms	2018	Strategy and Leadership
Biglaiser, G., Calvano, E., Crémer, J.	Incumbency advantage and its value	2019	Journal of Economics and Management Strategy
Blondel, F., Edouard, S.	Entrance into a platform-dominated market: Virtue of an open strategy on the numerical computation market	2015	Canadian Journal of Administrative Sciences
Boudreau, K.J.	Platform boundary choices & governance: Opening-up while still coordinating and orchestrating	2017	Advances in Strategic Management
Boudreau, K.J., Jeppesen, L.B.	Unpaid crowd complementors: The platform network effect mirage	2015	Strategic Management Journal

Braune, E., Dana, L-P.	Digital entrepreneurship: Some features of new social interactions	2021	Canadian Journal of Administrative Sciences
Broekhuizen, T.L.J., Emrich, O., Gijsenberg, M.J., Broekhuis, M., Donkers, B., Sloot, L.M.	Digital platform openness: Drivers, dimensions and outcomes	2019	Journal of Business Research
Cabral, L.	Towards a theory of platform dynamics	2019	Journal of Economics and Management Strategy
Caldieraro, F., Zhang, J.Z., Cunha, M., Shulman, J.D.	Strategic information transmission in peer-to-peer lending markets	2018	Journal of Marketing
Casadesus-Masanell, R., Campbell, N.	Platform competition: Betfair and the UK market for sports betting	2019	Journal of Economics and Management Strategy
Casadesus-Masanell, R., Hałaburda, H.	When does a platform create value by limiting choice?	2014	Journal of Economics and Management Strategy
Casadesus-Masanell, R., Llanes, G.	Investment Incentives in Open-Source and Proprietary Two-Sided Platforms	2015	Journal of Economics and Management Strategy
Casey, T.R., Töyli, J.	Dynamics of two-sided platform success and failure: An analysis of public wireless local area access	2012	Technovation
Cenamor, J., Parida, V., Wincent, J.	How entrepreneurial SMEs compete through digital platforms: The roles of digital platform capability, network capability and ambidexterity	2019	Journal of Business Research
Cenamor, J., Usero, B., Fernández, Z.	The role of complementary products on platform adoption: Evidence from the video console market	2013	Technovation
Cennamo, C.	Competing in digital markets: A platform-based perspective	2021	Academy of Management Perspectives
Cennamo, C.	Building the Value of Next-Generation Platforms: The Paradox of Diminishing Returns	2018	Journal of Management
Cennamo, C., Santalo, J.	Platform competition: Strategic trade-offs in platform markets	2013	Strategic Management Journal
Chakravarty, A., Kumar, A., Grewal, R.	Customer orientation structure for Internet-based business-to-business platform firms	2014	Journal of Marketing
Chan, H., Yang, M.X., Zeng, K.J.	Bolstering ratings and review systems on multi-sided platforms: A co-creation perspective	2022	Journal of Business Research

Chi, Y., Qing, P., Jin, J.J., Yu, J., Dong, M.C., Huang, L.	Competition or spillover? Effects of platform-owner entry on provider commitment	2022	Journal of Business Research
Choi, J.P., Zennyo, Y.	Platform market competition with endogenous side decisions	2019	Journal of Economics and Management Strategy
Choi, K., Ryu, S., Cho, D.	When a loss becomes a gain: different effects of substitute versus complementary loss leaders in a multi-sided platform	2019	Electronic Markets
Chu, J., Manchanda, P.	Quantifying cross and direct network effects in online consumer-to-consumer platforms	2016	Marketing Science
Clauss, T., Harengel, P., Hock, M.	The perception of value of platform-based business models in the sharing economy: determining the drivers of user loyalty	2019	Review of Managerial Science
Crittenden, A.B., Crittenden, V.L., Crittenden, W.F.	Industry Transformation via Channel Disruption	2017	Journal of Marketing Channels
Curchod, C., Patriotta, G., Cohen, L., Neysen, N.	Working for an Algorithm: Power Asymmetries and Agency in Online Work Settings	2019	Administrative Science Quarterly
Cusumano, M.A.	Platforms versus products: Observations from the literature and history	2012	Advances in Strategic Management
Cusumano, M.A., Gawer, A.	The elements of platform leadership	2002	MIT Sloan Management Review
Cutolo, D., Hargadon, A., Kenney, M.	Competing on platforms	2021	MIT Sloan Management Review
Dell'Era, C., Trabucchi, D., Magistretti, S.	Exploiting incumbents' potentialities: From linear value chains to multisided platforms	2021	Creativity and Innovation Management
Denning, S.	Mastering the challenge of business ecosystems	2021	Strategy & Leadership
Eckhardt, G. M., Houston, M. B., Jiang, B., Lamberton, C., Rindfleisch, A., Zervas, G.	Marketing in the Sharing Economy	2019	Journal of Marketing
Edelman, B.	Mastering the intermediaries: Strategies for dealing with the likes of Google, Amazon, and Kayak	2014	Harvard Business Review
Eisenmann, T., Parker, G., Van Alstyne, M.	Platform envelopment	2011	Strategic Management Journal
Eisenmann, T., Parker, G., Van Alstyne, M.W.	Strategies for two-sided markets	2006	Harvard Business Review
Eisenmann, T.R.	Managing proprietary and shared platforms	2008	California Management Review

Eloranta, V., Turunen, T.	Platforms in service-driven manufacturing: Leveraging complexity by connecting, sharing, and integrating	2016	Industrial Marketing Management
Etro, F.	Product selection in online marketplaces	2021	Journal of Economics and Management Strategy
Fang, E., Li, X., Huang, M., Palmatier, R.W.	Direct and indirect effects of buyers and sellers on search advertising revenues in business-to-business electronic platforms	2015	Journal of Marketing Research
Furman, J., Gawer, A., Silverman, B.S., Stern, S.	Introduction: Entrepreneurship, innovation, and platforms	2017	Advances in Strategic Management
Fürstenau, D., Auschra, C., Klein, S., Gersch, M.	A process perspective on platform design and management: evidence from a digital platform in health care	2019	Electronic Markets
Gawer, A.	Digital platforms' boundaries: The interplay of firm scope, platform sides, and digital interfaces	2020	Long Range Planning
Gawer, A.	Bridging differing perspectives on technological platforms: Toward an integrative framework	2014	Research Policy
Gawer, A.	Digital platforms and ecosystems: remarks on the dominant organizational forms of the digital age	2022	Innovation: Organization & Management
Gawer, A., Cusumano, M.A.	Industry platforms and ecosystem innovation	2014	Journal of Product Innovation Management
Gawer, A., Cusumano, M.A.	How companies become platform leaders	2008	MIT Sloan Management Review
Gawer, A., Henderson, R.	Platform owner entry and innovation in complementary markets: Evidence from Intel	2007	Journal of Economics and Management Strategy
Gazé, P., Vaubourg, A.-G.	Electronic platforms and two-sided markets: A side-switching analysis	2011	Journal of High Technology Management Research
Gregory, R.W., Henfridsson, O., Kaganer, E., Kyriakou, S. H.	The role of artificial intelligence and data network effects for creating user vale	2021	Academy of Management Review
Greve, H.R., Song, S.Y.	Amazon warrior: How a platform can restructure industry power and ecology	2017	Advances in Strategic Management
Hagel III, J., Brown, J.S., Davison, L.	Shaping in a world of constant disruption	2008	Harvard Business Review
Hagiu, A.	Strategic decisions for multisided platforms	2014	MIT Sloan Management Review

Hagiu, A.	Two-sided platforms: Product variety and pricing structures	2009	Journal of Economics and Management Strategy
Halaburda, H., Yehezkel, Y.	Focality advantage in platform competition	2019	Journal of Economics and Management Strategy
Hałaburda, H., Yehezkel, Y.	The Role of Coordination Bias in Platform Competition	2016	Journal of Economics and Management Strategy
Hänninen, M., Smedlund, A.	Same Old Song with a Different Melody: The Paradox of Market Reach and Financial Performance on Digital Platforms	2021	Journal of Management Studies
Hänninen, M.	Review of studies on digital transaction platforms in marketing journals	2020	International Review of Retail, Distribution and Consumer Research
Hänninen, M., Mitronen, L., Kwan, S.K.	Multi-sided marketplaces and the transformation of retail: A service systems perspective	2019	Journal of Retailing and Consumer Services
Healey, J., Moe, W.W.	The effects of installed base innovativeness and recency on content sales in a platform-mediated market	2016	International Journal of Research in Marketing
Hein, A., Schreieck, M., Riasanow, T., Setzke, D.S., Wiesche, M., Böhm, M., Krcmar, H.	Digital platform ecosystems	2019	Electronic Markets
Hein, A., Schreieck, M., Wiesche, M., Böhm, M., Krcmar, H.	The emergence of native multi-sided platforms and their influence on incumbents	2019	Electronic Markets
Hein, A., Weking, J., Schreieck, M., Wiesche, M., Böhm, M., Krcmar, H.	Value co-creation practices in business-to-business platform ecosystems	2019	Electronic Markets
Helfat, C.E., Raubitschek, R.S.	Dynamic and integrative capabilities for profiting from innovation in digital platform-based ecosystems	2018	Research Policy
Hokkanen, H., Hänninen, M., Yrjölä, M., Saarijärvi, H.	From customer to actor value propositions: an analysis of digital transaction platforms	2021	International Review of Retail, Distribution and Consumer Research
Hossain, T., Morgan, J.	When do markets tip? A cognitive hierarchy approach	2013	Marketing Science
Iansiti, M., Euchner, J.	Competing in Ecosystems: An Interview with Marco IansitiMarco Iansiti talks with Jim Euchner about digital hubs, the platforms at the heart of them, and how to compete in emerging digital ecosystems.	2018	Research Technology Management

Inoue, Y., Tsujimoto, M.	Genres of Complementary Products in Platform-Based Markets: Changes in Evolutionary Mechanisms by Platform Diffusion Strategies	2018	International Journal of Innovation Management
Jacobides, M.G., Cennamo, C., Gawer, A.	Towards a theory of ecosystems	2018	Strategic Management Journal
Jiang, B., Zou, T.	Consumer Search and Filtering on Online Retail Platforms	2020	Journal of Marketing Research
Jiang, B., Jerath, K., Srinivasan, K	Firm strategies in the "mid tail" of platform-based retailing	2011	Marketing Science
Kandampully, J.	B2B relationships and networks in the Internet age	2003	Management Decision
Karhu, K., Ritala, P.	Slicing the cake without baking it: Opportunistic platform entry strategies in digital markets	2020	Long Range Planning
Katz, M.L.	Platform economics and antitrust enforcement: A little knowledge is a dangerous thing	2019	Journal of Economics and Management Strategy
Kenney, M., Rouvinen, P., Seppälä, T., Zysman, J.	Platforms and industrial change	2019	Industry and Innovation
Khanagha, S., Shahzad, A., Paroutis, S., Oviedo, L.	Mutualism and the dynamics of new platform creation: A study of Cisco and fog computing	2020	Strategic Management Journal
Kim, D.Y., Kim, S.Y.	The impact of customer-generated evaluation information on sales in online platform-based markets	2022	Journal of Retailing and Consumer Services
Kollmann, T., Hensellek, S., de Cruppe, K., Sirges, A.	Toward a renaissance of cooperatives fostered by Blockchain on electronic marketplaces: a theory-driven case study approach	2019	Electronic Markets
Kretschmer, T., Leiponen, A., Schilling, M., Vasudeva, G.	Platform ecosystems as meta-organizations: Implications for platform strategies	2020	Strategic Management Journal
Laczko, P., Hullova, D., Needham, A., Rossiter, A.-M., Battisti, M.	The role of a central actor in increasing platform stickiness and stakeholder profitability: Bridging the gap between value creation and value capture in the sharing economy	2019	Industrial Marketing Management

Ladd, T.	The Achilles' heel of the platform model: Disintermediation	2022	Business Horizons
Lamberton, C., Stephen, A.T.	A thematic exploration of digital, social media, and mobile marketing: Research evolution from 2000 to 2015 and an agenda for future inquiry	2016	Journal of Marketing
Lan, S., Liu, K., Dong, Y.	Dancing with wolves: how value creation and value capture dynamics affect complementor participation in industry platforms	2019	Industry and Innovation
Landsman, V., Sremersch, S.	Multihoming in two-sided markets: An empirical inquiry in the video game console industry	2011	Journal of Marketing
Lee, J.-Y., Fang, E., Kim, J.J., Li, X., Palmatier, R.W.	The Effect of Online Shopping Platform Strategies on Search, Display, and Membership Revenues	2018	Journal of Retailing
Lee, R.S.	Competing Platforms	2014	Journal of Economics and Management Strategy
Lehdonvirta, V., Kässi, O., Hjorth, I., Barnard, H., Graham, M.	The Global Platform Economy: A New Offshoring Institution Enabling Emerging-Economy Microproviders	2019	Journal of Management
Li, X., Li, X., Wang, R.	An Investigation on Incentive Strategies in Community Building in Business-to-Business Electronic Markets	2018	Journal of Business-to-Business Marketing
Liu, Y., Chen, D.Q., Gao, W.	How does customer orientation (in)congruence affect B2B electronic commerce platform firms' performance?	2020	Industrial Marketing Management
Loginova, O.	Price competition online: Platforms versus branded websites	2021	Journal of Economics and Management Strategy
Loux, P., Aubry, M., Tran, S., Baudoin, E.	Multi-sided platforms in B2B contexts: The role of affiliation costs and interdependencies in adoption decisions	2020	Industrial Marketing Management
Mathmann, F., Chylinski, M., de Ruyter, K., Higgins, E.T.	When Plentiful Platforms Pay Off: Assessment Orientation Moderates the Effect of Assortment Size on Choice Engagement and Product Valuation	2017	Journal of Retailing
McIntyre, D., Srinivasan, A., Afuah, A., Gawer, A., Kretschmer, T.	Multisided platforms as new organizational forms	2021	Academy of Management Perspectives
McIntyre, D.P., Srinivasan, A.	Networks, platforms, and strategy: Emerging views and next steps	2017	Strategic Management Journal

McIntyre, D.P., Srinivasan, A., Chintakananda, A.	The persistence of platforms: The role of network, platform, and complementor attributes	2020	Long Range Planning
Miric, M., Boudreau, K.J., Jeppesen, L.B.	Protecting their digital assets: The use of formal & informal appropriability strategies by App developers	2019	Research Policy
Muzellec, L., Ronteau, S., Lambkin, M.	Two-sided Internet platforms: A business model lifecycle perspective	2015	Industrial Marketing Management
Nambisan, S., Baron, R.A.	On the costs of digital entrepreneurship: Role conflict, stress, and venture performance in digital platform-based ecosystems	2019	Journal of Business Research
Nuccio, M., Guerzoni, M.	Big data: Hell or heaven? Digital platforms and market power in the data-driven economy	2019	Competition and Change
Ordanini, A., Pol, A.	Infomediation and competitive advantage in b2b digital marketplaces	2001	European Management Journal
Ozalp, H., Cennamo, C., Gawer, A.	Disruption in Platform-Based Ecosystems	2018	Journal of Management Studies
Panico, C., Cennamo, C.	User preferences and strategic interactions in platform ecosystems	2020	Strategic Management Journal
Parmentier, G., Gandia, R.	Redesigning the business model: from one-sided to multi-sided	2017	Journal of Business Strategy
Pellizzoni, E., Trabucchi, D., Buganza, T.	Platform strategies: how the position in the network drives success	2019	Technology Analysis and Strategic Management
Perks, H., Kowalkowski, C., Witell, L., Gustafsson, A.	Network orchestration for value platform development	2017	Industrial Marketing Management
Perren, R., Kozinets, R.V.	Lateral exchange markets: How social platforms operate in a networked economy	2018	Journal of Marketing
Porter, M.E.	Strategy and the Internet	2001	Harvard Business Review
Pousttchi, K., Gleiss, A.	Surrounded by middlemen - how multi-sided platforms change the insurance industry	2019	Electronic Markets
Ramaswamy, V.	Leading the experience ecosystem revolution: innovating offerings as interactive platforms	2020	Strategy and Leadership
Ramaswamy, V., Ozcan, K.	What is co-creation? An interactional creation framework and its implications for value creation	2018	Journal of Business Research
Ramaswamy, V., Ozcan, K.	Offerings as digitalized interative offerings: a conceptual framework and implications	2018	Journal of Marketing

Rangaswamy A., Moch, N., Felten, C., van Bruggen, G., Wieringa, J.E., Wirtz, J.	The Role of Marketing in Digital Business Platforms	2020	Journal of Interactive Marketing
Reimers, K., Guo, X., Li, M.	Beyond markets, hierarchies, and hybrids: an institutional perspective on IT-enabled two-sided markets	2019	Electronic Markets
Reinartz, W., Wiegand, N., Imschloss, M.	The impact of digital transformation on the retailing value chain	2019	International Journal of Research in Marketing
Rietveld, J., Schilling, M.A.	Platform Competition: A Systematic and Interdisciplinary Review of the Literature	2021	Journal of Management
Ritala, P., Golnam, A., Wegmann, A.	Coopetition-based business models: The case of Amazon.com	2014	Industrial Marketing Management
Roger, G., Vasconcelos, L.	Platform Pricing Structure and Moral Hazard	2014	Journal of Economics and Management Strategy
Rohn, D., Bican, P.M., Brem, A., Kraus, S., Clauss, T.	Digital platform-based business models – An exploration of critical success factors	2021	Journal of Engineering and Technology Management
Saadatmand, F., Lindgren, R., Schultze, U.	Configurations of platform organizations: Implications for complementor engagement	2019	Research Policy
Shaughnessy, H.	Harnessing platform-based business models to power disruptive innovation	2016	Strategy and Leadership
Spinello, R.A.	Competing fairly in the new economy: Lessons from the browser wars	2005	Journal of Business Ethics
Spulber, D.F.	The economics of markets and platforms	2019	Journal of Economics and Management Strategy
Sridhar, S., Mantrala, M.K., Naik, P.A., Thorson, E.	Dynamic marketing budgeting for platform firms: Theory, evidence, and application	2011	Journal of Marketing Research
Sriram, S., Manchanda, P., Bravo, M.E., Chu, J., Ma, L., Song, M., Shriver, S., Subramanian, U.	Platforms: a multiplicity of research opportunities	2015	Marketing Letters
Steiner, M., Wiegand, N., Eggert, A., Backhaus, K.	Platform adoption in system markets: The roles of preference heterogeneity and consumer expectations	2016	International Journal of Research in Marketing
Suarez, F.F., Kirtley, J.	Dethroning an established platform	2012	MIT Sloan Management Review
Sun, L., Rajiv, S., Chu, J.	Beyond the more the merrier: The variety effect and consumer heterogeneity in system markets	2016	International Journal of Research in Marketing

Sun, M., Tse, E.	The resource-based view of competitive advantage in two-sided markets	2009	Journal of Management Studies
Sur, M., Lee, D.-J., Kim, K.-T.	Optimal revenue sharing in platform markets: a Stackelberg model	2019	Journal of Revenue and Pricing Management
Taeuscher, K.	Uncertainty kills the long tail: demand concentration in peer-to-peer marketplaces	2019	Electronic Markets
Taeuscher, K., Rothe, H.	Optimal distinctiveness in platform markets: Leveraging complementors as legitimacy buffers	2021	Strategic Management Journal
Täuscher, K., Laudien, S.M.	Understanding platform business models: A mixed methods study of marketplaces	2018	European Management Journal
Tavalaei, M.M., Cennamo, C.	In search of complementarities within and across platform ecosystems: Complementors' relative standing and performance in mobile apps ecosystems	2020	Long Range Planning
Tee, R., Gawer, A.	Industry architecture as a determinant of successful platform strategies: A case study of the i-mode mobile Internet service	2009	European Management Review
Teece, D.J.	Dynamic capabilities and (digital) platform lifecycles	2017	Advances in Strategic Management
Teece, D.J.	Profiting from innovation in the digital economy: Enabling technologies, standards, and licensing models in the wireless world	2018	Research Policy
Thomas, L.D.W., Autio, E., Gann, D.M.	Architectural leverage: Putting platforms in context	2014	Academy of Management Perspectives
Thomas, M., Le Masson, P., Weil, B., Legrand, J.	The future of digital platforms: Conditions of platform overthrow	2021	Creativity and Innovation Management
Toh, P, K., Agarwal, S.	The option value in complements within platform-based ecosystems	2022	Strategic Management Journal
Trabucchi, D., Buganza, T., Muzellec, L., Ronteau, S.	Platform-driven innovation: Unveiling research and business opportunities	2021	Creativity and Innovation Management
Trabucchi, D., Muzellec, L., Ronteau, S., Buganza, T.	The platforms' DNA: drivers of value creation in digital two-sided platforms	2021	Technology Analysis and Strategic Management
Trabucchi, D., Buganza, T.	Landlords with no lands: a systematic literature review on hybrid multi-sided platforms and platform thinking	2021	European Journal of Innovation Management
Trabucchi, D., Sanasi, S., Ghezzi, A., Buganza, T.	Idle Asset Hunters—The Secret of Multi-sided Platforms	2021	Research Technology Management

Trabucchi, D., Buganza, T., Verganti, R.	Quantity or quality? Value creation in two-sided platforms	2021	Technology Analysis and Strategic Management
Trabucchi, D., Moretto, A., Buganza, T., MacCormack, A.	Disrupting the Disruptors or Enhancing Them? How Blockchain Reshapes Two-Sided Platforms	2020	Journal of Product Innovation Management
Trabucchi, D., Buganza, T.	Fostering digital platform innovation: From two to multi-sided platforms	2020	Creativity and Innovation Management
Tura, N., Kutvonen, A., Ritala, P.	Platform design framework: conceptualisation and application	2018	Technology Analysis and Strategic Management
Vakeel, K.A., Fudurić, M., Malthouse, E.C.	Extending variety seeking to multi-sided platforms: Impact of new retailer listing	2021	Journal of Retailing and Consumer Services
Veisdal, J.	The dynamics of entry for digital platforms in two-sided markets: a multi-case study	2020	Electronic Markets
Wallbach, S., Coleman, K., Elbert, R., Benlian, A.	Multi-sided platform diffusion in competitive B2B networks: inhibiting factors and their impact on network effects	2019	Electronic Markets
Wan, X., Chen, J.	The relationship between platform choice and supplier's efficiency- evidence from China's online to offline (O2O)e-commerce platforms	2019	Electronic Markets
Wang, R.D., Miller, C.D.	Complementors' engagement in an ecosystem: A study of publishers' e-book offerings on Amazon Kindle	2020	Strategic Management Journal
Weking, J., Mandlenakis, M., Hein, A., Hermes, S., Böhm, M., Krcmar, H.	The impact of blockchain technology on business models – a taxonomy and archetypal patterns	2019	Electronic Markets
Wen, W., Zhu, F.	Threat of platform-owner entry and complementor responses: Evidence from the mobile app market	2019	Strategic Management Journal
Wichmann, J.R.K., Wiegand, N., Reinartz, W.J.	The platformization of brands	2022	Journal of Marketing
Willing, C., Brandt, T., Neumann, D.	Electronic mobility market platforms – a review of the current state and applications of business analytics	2017	Electronic Markets
Winter, J., Battisti, S., Burström, T., Luukkainen, S.	Exploring the Success Factors of Mobile Business Ecosystems	2018	International Journal of Innovation and Technology Management
Wulfert, T., Woroch, R., Strobel, G., Seufert, S., Möller, F.	Developing design principles to standardize e-commerce ecosystems	2022	Electronic Markets
Xiao, L., Zhang, Y., Fu, B.	Exploring the moderators and causal process of trust transfer in online-to-offline commerce	2019	Journal of Business Research

Yang, G., Wang, R.	The institutionalization of an electronic marketplace in China, 1998-2010	2013	Journal of Product Innovation Management
Yang, Z., Diao, Z., Kang, J.	Customer management in Internet-based platform firms: review and future research directions	2020	Marketing Intelligence and Planning
Yrjölä, M., Rintamäki, T., Saarijärvi, H., Joensuu, J.	Consumer-to-consumer e-commerce: outcomes and implications	2017	International Review of Retail, Distribution and Consumer Research
Zeng, J., Glaister, K.W.	Competitive Dynamics between Multinational Enterprises and Local Internet Platform Companies in the Virtual Market in China	2016	British Journal of Management
Zervas, G., Proserpio, D., Byers, J.W.	The rise of the sharing economy: Estimating the impact of airbnb on the hotel industry	2017	Journal of Marketing Research
Zhang, J., Balaji, M.S., Luo, J., Jha, S.	Effectiveness of product recommendation framing on online retail platforms	2022	Journal of Business Research
Zhang, S., Tang, T.	Managing same-side and cross-side innovations in two-sided platforms	2019	Marketing Intelligence and Planning
Zhang, Y., Li, J., Tong, T.	Platform governance matters: How platform gatekeeping affects knowledge sharing among complementors	2020	Strategic Management Journal
Zhang, X., Luo, J., Li, Q.	Do different reputation systems provide consistent signals of seller quality: A canonical correlation investigation of Chinese C2C marketplaces	2012	Electronic Markets
Zhao, Y., von Delft, S., Morgan-Thomas, A., Buck, T.	The evolution of platform business models: Exploring competitive battles in the world of platforms	2019	Long Range Planning
Zhu, F.	Friends or foes? Examining platform owners' entry into complementors' spaces	2019	Journal of Economics and Management Strategy
Zhu, F., Iansiti, M	Entry into platform-based markets	2012	Strategic Management Journal
Zhu, F., Liu, Q.	Competing with complementors: An empirical look at Amazon.com	2018	Strategic Management Journal

Appendix 5: Interview guide – platform company

Zalando (45-60 min)

Welcome

Information and purpose of the study, duration of interview, sound/voice recording, data management and storage, anonymity of informant, openness of case company in research publications (avoid company-sensitive information), fill out consent form.

1. Introduction

Presentation of informant

Information about the company

1.1 Ask informant to elaborate on the development of the company, and the launch of the 3rd party seller/connected retail program.

2. Complementor-driven value logic

//Introduce the concept of value logics, derived from the platform literature

//Introduce the complementor-driven value logics, exemplify, and demonstrate the connections between the business model concept of value creation-delivery-capture using the conceptual framework (do only display one value logic at a time).

//Investigate whether the suggested relationships are reflected as beliefs with the informant, follow-up, and probe for depth and details. Enable a natural conversation surrounding each logic (theme)

How do Zalando benefit from connecting with many 3rd party sellers? Value for you as a platform Value to the customer	Large variety Large variety vs improved matching of supply/demand Product quality / product innovation Reduced inventory risk Distribution benefits? Access to markets?
The difference between wholesale and a marketplace model Brand exclusivity or many complementors providing the same brand? (use the Polo Ralph Lauren cap example)	

3. Scale-driven value logic

//Introduce the scale-driven value logic, exemplify, and demonstrate the connections between the business model concept of value creation-delivery-capture

//Investigate whether the suggested relationships are reflected as beliefs with the informant, follow-up, and probe.

//Rather than discuss scale advantages in general, use the means of value delivery as starting point for discussions to shed light on the logic (creation-delivery-capture)

Low price due to scale advantages. -Wholesale/owned goods -3rd party sellers to increase competition -other mechanisms that provide lower price to customer	Delivery/shipping Purchase agreements/volume

Matching of supply/demand How do you experience network effects in practice? Do more customers attract more suppliers and vice versa?	
Access to new market for complementors/3rd party sellers	Increased market power, capture more value through transaction fees -marketing services -advertising revenue

4. Scope-driven value logics

//Introduce the scope-driven value logic, exemplify, and demonstrate the connections between the business model concept of value creation-delivery-capture

//Investigate whether the suggested relationships are reflected as beliefs with the informant, follow-up, and probe.

Capability: Data analytics	Value through improved customer experience – personalization and recommendations -at the marketplace -newsletters -other digital communication Higher efficiency or effectiveness? More sales - volume? More sales - value? Price premium due to segmentation/differentiation?

Excess capacity: -ZMS Zalando Marketing Services Do you have other revenue sources besides the marketplace?	Do you only serve clients and product and ad spaces on Zalando (web/mobile/app), or do you also provide digital marketing communication at other ad spaces for the clients? Sales of data / insight?
Relationship management -the role you take towards suppliers/3rd party sellers. How to help them be successful, utilize their resources in a better way -go online/launch online store -adaptations in product collection of offerings	Do you take an active part in developing the suppliers (complementors) and making them successful? -Premium price -Acquisition costs -Market power -Customer loyalty / returning buyers

5. Interaction-driven value logics

//Introduce the interaction-driven value logic, exemplify, and demonstrate the connections between the business model concept of value creation-delivery-capture

//Investigate whether the suggested relationships are reflected as beliefs with the informant, follow-up, and probe.

Customer-to-Customer interactions	Where do these take place? Outside the platform – at other places

Customer-to-Complementor	Reviews/ratings Customer services at platform: higher capacity, improved quality at platform rather than directly with 3rd party seller?
Complementor-to-Complementor	Any knowledge of arenas complementors meet to exchange ideas, knowledge Similar to «Fulfilled by Amazon»-groups on Facebook?

6. Informant follow up, clarification and closing of interview

Clarify any uncertainties, address any questions from informant, provide preliminary findings and research propositions to see if this triggers additional information/insight/perspectives from the informant. Probe for further details.

Closing of interview.

Appendix 6: Interview guide – complementors

(45-60 min)

Welcome

Information and purpose of the study, duration of interview, sound/voice recording, data management, anonymity, fill out consent form.

Presentation of informant

1. Introduction/warm-up **(5 min)**

What is your current role in the company?

Can you please tell me about the products and/or services that you offer?

What are your primary target groups (customers)?

Which channels do you use for sales (of products)?

Physical stores, own online store, other retailers, marketplaces / platforms

2. Online distribution **(5 min)**

For how long have you sold/delivered goods to marketplaces/platforms? What categories of goods or services have you distributed/delivered to platforms or online stores within the last year? Is there anything you only provide to the platforms/marketplaces, that you don't distribute to physical retail or other channels? - Is there any difference between what you offer on [the platform], [online store], and other channels? - Why? Do you have any own brand(s)? -are these for sale at the marketplaces?	*Just another channel (of distribution) or is it a strategic distribution of the product portfolio / product collection against different marketing channels?*

3. Choice – what creates value **(30-40 min)**

We are going to talk about both [the platform] and [the online store] that you have mentioned and what experiences you have made selling or distributing to these.

Why have you decided to sell your products through a digital platform / marketplace? What would you say is the benefits and disadvantages with this?	*Broad general mapping* *Cues: New market, a large market, many potential customers* *Awareness and visibility in own (geographic) market*
What is important to you when you are to distribute or choose [the platform]? What criteria do you have? … what other criteria is important to you in this choice?	*Take note of different attributes (e.g., many customers, analysis tools, storage, shipping, payment solutions)* *Follow up to map out even more*
What/who is the alternatives here? Can go somewhere else to achieve the same goal? How do you evaluate [the platform] up against other channels? Is there anything unique?	*Take note...* *Uniquess or just another channel?*

SIZE/SCALE

Does it matter to you whether [the platform] you sell to is a widely known (and large) actor/player? Why is this important? Does it have any (strategical) implications which [platform] or [online store] you sell to, with regards to the reputation of the platform/online store – or is [the platform] or [the online store] just another place where you can distribute your goods, and that this doesn't matter? • If so, how would you say [the platform's] or [the online store's] brand reflect you own brand or strategy? How/Why is it important to you that the [platform] or [online store] is large (in terms of size) – meaning they have many customers?	*What is behind this. What represents a well-known or large player?* *positive: serious actor, low risk* *negative: low innovativeness, unpredictable, unclear* *How do you perceive the platform or online store up against other channels you use today?* *New market/segment, large market, many potential buyers* *What is this really about?* ***Matching***

Is «the more customers, the better»? Do you want more, or as many customers as possible?	*The volume vs. value per customer*
Does it matter to you whether it is [the platform] who's selling the products, or if you are listed as complementor / third party seller that sells directly to the end customer?	*Why – what is the difference?*
Do you experience any help/assistance from [the platform] in deciding what products or categories to prioritize?	*Insights in own category* *Why? – Effectiveness in the platform as a channel*
Do you spend more or less time finding the (right) buyer on [the platform] compared to an [online store]?	*Look for effectiveness/efficiency in search – selection/variety – relevance vs choice overload*
Are there other places this would have been faster?	*Comparatively to other online stores or channels*

PRICE COMPETITION/PRICE PRESSURE AND PROFITABILITY

How do you experience [the platform's] focus on price compared with [online store] or other channels? What is it, in your opinion, that affects this?	*Is price a stronger driver of sale on a platform compared with online store or other channels (physical retail)? Is the price presentation more elevated or prominent?*
Do you operate with price differentiation across the different channels, or is the «selling price» identical across all channels?	*Probe for lower price due to higher competition*
Is there any difference in average customer value on [the platform] compared with other channels?	
How do you evaluate the profitability of selling on [the platform]? What costs do you include in the calculations?	*What are the costs per order handled through the platform compared with other channels. Total costs associated with selling an item, including marketing costs*

QUALITY AND SUSTAINABILITY

What does the term product quality imply/mean to you? What do you include in this concept?	*Durability, functionality, Price/value*
Who sets, in your opinion, the premises for the quality of the products? - The customers (only), or also others?	*Does the platform set any guidance or requirements for this??*
Is the quality (of your products) affected by what your competitors or others [on the platform] offer? In what way?	*Does the complementor experience/believe that more complementors increase innovation? (product innovation/product development/improved products or solutions?)*
Would you say that sustainability has something to do with product quality?	*In what way?*
Do you make conscious choices related to sustainability when selling on [the platform] or at [the online store]?	*Tell me, give me an example* *How, through the products or other services?*
Except product quality: – in what other areas are quality important to you?	*Service quality, delivery quality*
How do you experience whether [the platform] matches your requirements or expectations to this kind of quality compared with [the online store] or other channels?	

INTERACTIONS – DIRECT NETWORK EFFECTS - COMPLEMENTARITY

Do you know of anyone / do you pay attention to other complementors/suppliers that also sell on [the platform]?	*Why? Does it matter whether you know them?* *Why? What is it about? (trust, security, social value – discuss with others)*
Is it important/does it matter to you which other complementors there are?	*Compare with online stores and other channels*

Is it important to be able to see who the other complementors/sellers are? Do you talk to other complementors/sellers about what actions you make on [the platform] or on [the online store]? Do other sellers offer products or services that completes (complementarity) the product you are offering on [the platform]? Are you aware of any cross-sales you make from other products or categories on [the platform]? Are there any products you are able to sell on [the platform] because of this complementarity -that you don't experience in other channels? Why? Is the effect of other sellers/competitors stronger on [the platform] compared with other channels (e.g., physical retail)? Are you more or less affected by others? Are you inspired by the other sellers on [the platform]? In what way? Are you in direct competition on the platform/marketplace? Do other sellers offer identical products or brands? -If so, how are you affected by this? What about the producers, are they present with direct sales (direct to customer distribution) on the platforms/marketplaces?	*(more difficult to identify the seller on Zalando/Miinto)* *Where? In physical or digital arenas?* *One-stop shop* *How does this happen? Through product recommendations from the platform provider or through the customer's own (search) behavior?* *Increased visibility?* *Recommendations?* *Larger variety/no constraints on variety or space?* *Product innovation or development / product variety* *Communication/presentation (imagery/text)* *What are your thoughts concerning this?*

PRODUCT REVIEWS

Are you concerned with product reviews on [the platform]? Why? How does it create value to you? Dice-based rating/number of stars or comments?	*Customers'/users' own descriptions* *– is there any difference compared with the [online store]?*

Do you read the reviews that other provides on your products? Do you respond to the reviews on products, or how the customers experience the service on [the platform]? Does [the platform] require you to respond to questions or feedback? What do you expect such feedback to give? Do you miss anything? (pictures or other?) Does it matter *whom* is providing the reviews or feedback? Do you pay attention to reviews of others / competitors products? Why? What do you learn from this?	*If reviews: How do you experience the quality of the content*? *What are the consequences of not responding?* *In your experience: Is the platform on «your side» or on «the customer's side" – meaning "the customer is always right"* *Why?* *«Experts» vs ordinary customers*

RECOMMENDATIONS

Do you find the product recommendations (from the platform provider) to be of value/valuable? In what way does they create value? Do you find/experience them as fair? Do you know how to affect the product recommendations? Do you experience any difference in the recommendations provided by [the platform] compare with other platforms/marketplaces or other [online stores]?	*Make it clear that these are recommendations from the platform provider, often based on algorithms, buying history and similar customers (customer profiles)*

How do you find this way of recommendations compared to recommendations in other channels, such as physical retail?	

CUSTOMERS AND CUSTOMER INTERACTIONS

Does it mean anything where the buyer on a platform is located? If the buyers are from Norway or if they are international customers? Why would it matter?	
Are the customers entered in a dedicated customer registry or is it considered as ad hoc sales with no possibility for further actions such as following up/CRM activities? -If possible, how are they followed up?	*Discover whether the platform/marketplace is being used as a recruitment channel to own online store*
Is there any way of communicating directly with the customer/buyer on [the platform]?	*(Not possible on Zalando, CDON (only indirectly), MIINTO – but possible at FINN, AMAZON, EBAY)*
If yes: Is this based on an initiative from the buyer, or do you as a seller also make the initiative to communicate?	
Why is that? What is your goal of such actions?	
Have you ever made such an initiative? Please tell me about it..	*How did you experience this? What was the result?*
How did you perceive the quality of the interaction? Do you consider it as valuable?	
If not: Do you wish you could communicate/interact directly with the buyer through the [platform]?	*Or directly (surpassing the platform)* *As referred to building a CRM database above*

ADDITIONAL SERVICES / LOYALTY PROGRAMS

Does the [platform] offer any other additional services than the sales of products/services?	*E.g., storage(warehouse), shipping/delivery, returns*

Do you purchase any of these services from [the platform]? Is this, then, important? Why is it/is it not? Do you take part in any customer club or loyalty program on the platform]? What are the benefits to you as a complementor/supplier?	*management, insight/analysis services, marketing, cloud storage, payment solutions* *Map out and discover usage and needs for a complete service delivery – and the advantages of this* *What about customer clubs/loyalty clubs in other online retail stores, physical retail/other channels?*

Wrap-up **(2-3 min)**

In light of this conversation, would you say that delivering to [the platform] has made any changes in retail in total for you as a complementor (supplier)? Going forward, do you intend to increase or reduce your presence on digital platforms?

Closing, questions

**

Appendix 7: Interview guide – customers

Welcome **(10 min / 10 min)**

Information about and purpose of the study, duration of interview, recording and data management, anonymity, consent form.

Presentation of group participants and moderator(s): Name, age, family, occupation. Last visited website (for shopping), item of purchase.

2. Warm-up/grand tour – Online shopping **(15 min / 25 min)**

How often would you say that you shop online? Do you shop on your own behalf, or do you also shop for others? What categories/types of products or services have you purchased online in the last year? What websites do you usually visit when you are to shop online? Which one(s) of these do you have a relatively good knowledge of? Is there anything you only buy online? Is there anything you never buy online? Have you downloaded any of the apps (applications) to the e-commerce sites? Which ones? Why?	*Goal: Map out and categorize at least one **platform** (preferably 2-3) and one traditional **online store** (preferably 2-3) for specific examples throughout the conversation* Tise, FINN, Zalando, Zara

3. Choice – what creates value (1t 10m-1t 45m / 1t 30-1t 55m)

For the rest of the conversations, we will talk about both the [platforms] and the [online stores] that you have mentioned.

3.1 MAPPING OF ATTRIBUTES / VALUE / DRIVERS OF CHOICE **(10 min / 35 min)**

What is important to you when you shop on [the platform]? Why do you go there?	*Take notes on the whiteboard.*

What are the options or alternatives? Is there anywhere else you can go to achieve the same (goal)? What other criteria are important for you in this choice? How do you navigate or orient yourselves on [the platform], do you browse to look for popular items, or do you search for it? Does it ever happen that you visit [the platform] without the intent to shop anything? Why?	*Every attribute (e.g., **price, variety**) for further follow-up in the interview* *Does the informant differentiate between «the product» and «the service»* *(browse, get inspiration, confirmation of value on purchases /post-purchase rationalizing)*

3.2 VARIETY **(15 min / 50 min)**

You mentioned/did not mention a large selection/product variety. What is it with a large variety that is valuable to you? Why is it valuable? Is the more, the better..? Do you want several or as many competing options as possible of the same (comparable) product or service? On platform or marketplaces like [Zalando]: Do you pay attention to whether it is [Zalando] offering the products, or whether it is provided by a third-party seller or external supplier? But are you conscious about this? Do you look for who's the seller of the product, or do you perceive/assume [the platform] to be the seller? Do you pay attention to what other products the seller provides? Do you «follow» any sellers on e.g., Tise or Ebay? Why? Do you buy from the same vendor/seller on [the platform] several times, or doesn't this matter?	*Take notes* *(lower price, compare different offers/vendors, higher quality??)* *Why – what is this really about?* ***Matching*** *Laddering – get a better overview, get a feeling of…* *Platform vs online store* *Look for quality/innovation, fulfils my needs in a better way* *If conscious: Why?* *FINN: click on «seller profile» Tise: Follow a seller, the platform's «featured seller»* *Why? Is loyalty linked to the platform/marketplace or the seller or brand?*

Are there any other advantages/benefits with [the platform] having many (different) vendors – besides a larger selection/variety? Do you ever experience getting help from [the platform] to sort out / select between the different offers/vendors? Do you spend more or less time finding the right product on [the platform] compared to on [the online store]? Are there other places this would have been faster? Does it matter to you whether [the platform] where you shop is a large player/company? Why?	*Look for quality/innovation* *Look for search efficiency (reduced search costs) – variety – relevance vs choice overload* *What about physical stores?* *What is behind/beneath this, what does a large player represent? (positive: seriousness, low risk, negative: not innovative, messy/crowded*

3.3 PRICE **(5-10 min / 55-60 min)**

You mentioned/did not mention price. How important in price when you shop online? How do you think [the platform] performs on price, compared with [online store] or other channels? -Why do you think the prices are low(er)? What is it, in your opinion, that affects this? -How? Are there anything else that could drive this? What is price to you? Only product price? What about shipping costs? Time costs? What/how much do you include in price/costs in a purchase? What about agent sites, bonus points / loyalty programs like «viaTrumf» - are you driven by the discounts or bonus points when selecting which online store to choose?	*Is price more important (driver of choice) on a platform compared to an online store or other channels (physical retail)?* *Probe for lower price due to increased competition* *Lower price due to economies of scale* *Norwegian CashPoints, EuroBonus, viaTrumf*

3.4 INTERACTIONS – DIRECT NETWORK EFFECTS **(10-15 min / 1t05–1t 15min)**

Do you (personally) know anyone else that also shops on [the platform]? Does it matter to you/is it important whom else is shopping there? Is it important to be able to see who the other customers are? Do you talk with other buyers regarding the purchases you make on [the platform] or at [the online store]? Do you only discuss with friends and acquaintances, or do you also talk or discuss with strangers online? Where do these conversations/interactions take place? On the platform where the transaction occurs, or in social media? Facebook, Messenger, Snap, WeChat, phone, SMS? Optional. Is there any difference compared with other channels (e.g., physical retail)?	*Try out different platforms, Zalando / Amazon / CDON / FINN* *Why? Does it mean anything if you know them? Why? What is it about (safety, trust, social value – discuss with others)* - *Quality of interactions* - *Effectiveness/efficiency – does it lead to a faster purchase process?* *Compare against online store and other channels*

3.5 COMPLEMENTORS AND INTERACTIONS **(10-15 min / 1t 15min-1t 30min)**

Does it matter where the complementors/sellers on a platform originate? If it is sellers from Norway or international sellers? Why does it matter? Is there any possibility to communicate directly with the seller on [the platform]? If yes: Have you ever done this? Tell me about it. How did you experience the quality of this interaction? Do you think of this as valuable? In cases where you cannot talk with the seller/supplier on the platform, like on Zalando.	*Not possible on ZALANDO, CDON (indirect only), MIINTO – but possible on FINN, AMAZON, EBAY* *Use FINN as example for probing. How did you experience this conversation? What was the result?*

What do you do if you have questions regarding the product or the shipment? Where do you go? If not: Could you wish you could talk directly with the seller/producer via [the platform]? Why would you? What would you achieve by this?	*Possible options: Make contact with the seller on e-mail, through the seller's Facebook-page* *What is the value of communicating through the platform compared to getting directly in touch? Save time, the response/answer/solution is also valuable to others than me?*

3.6 PRODUCT REVIEWS **(10 min / 1t 25min-1t 40min)**

Do you care about product reviews on [the platform]? Is it important? Do you read the feedback that others provide on either sellers or products? Do you have an example of an online store that does this well? Why? How does it create value to you? Dice score or comments? Do you miss anything (content)? (pictures or something else?) Does it matter *who's* providing the feedback or reviews? Do you yourself contribute by giving feedback on products or how you experience the service at [the platform]? Why do you think this is helpful? What do you expect such feedback to provide to others?	*– is it any difference compared to [the online store]?* *(trust, reduce risk, simplify search, reduce search costs)* *If comments: How do you experience the quality of the content?* *Why is that?* *Are they aware that they create value to others?*

3.7 RECOMMENDATIONS **(5-10 min / 1t 30min-1t 50min)**

What about product recommendations? What is your experience of this, are they valuable? In what way do they create value? Do you experience any difference between the recommendations provided by [the platform] versus other platforms or [online stores]? How is this different from other channels, like physical retail? Optional. Newsletter – are they perceived as relevant? Relevant offers and promotions? Optional. Personalization – willingness to share data to receive a better user experience, predefined filters	*Make clear that these are recommendations by the platform provider, often based on algorithms / purchase history and similar customer profiles*

3.8 PRODUCT QUALITY AND SUSTAINABILITY **(5-10 min / 1t 35min-2t)**

You mentioned/did not mention product quality. How important is product quality when you are shopping online? What does the concept product quality mean to you? What do you put into it? How do you experience [the platform's] performance on quality, compared with [the online store] or other channels? What or whom, in your opinion, affects the quality of the products? -Why? Is there anything else that might affect this? Would you say that sustainability has something to do with product quality? Have you ever made a conscious choice related to sustainability when you have shopped on [the platform] or at [the online store]?	*Durability, functionality* *The platform or the complementors?* *Does the customer have the impression that multiple suppliers increase the degree of product development / innovation / higher quality / better solutions?* *In what way?* *Tell me, give me an example*

Is this about choice of product or choice of supplier/vendor or brand? Purchase vs. No-purchase New vs. used	

3.9 ADDITIONAL SERVICES /LOYALTY PROGRAM **(5-10 min / 1t 40min-2t 10min)**

Does [the platform] offer any additional services besides the product/service offering? Do you purchase anything else from [the platform]? Is this an important feature? Why? Are you a member of any customer- or loyalty clubs on [the platform]? What are the benefits to you as a customers?	*For example, music/movie-streaming (Amazon), contracts/agreements/archive (FINN), disclose financing or insurance offers* *Map usage, needs and wants for a complete service delivery – and the advantages of this* *What about customer- and loyalty clubs at other online stores, physical retail/other channels?*

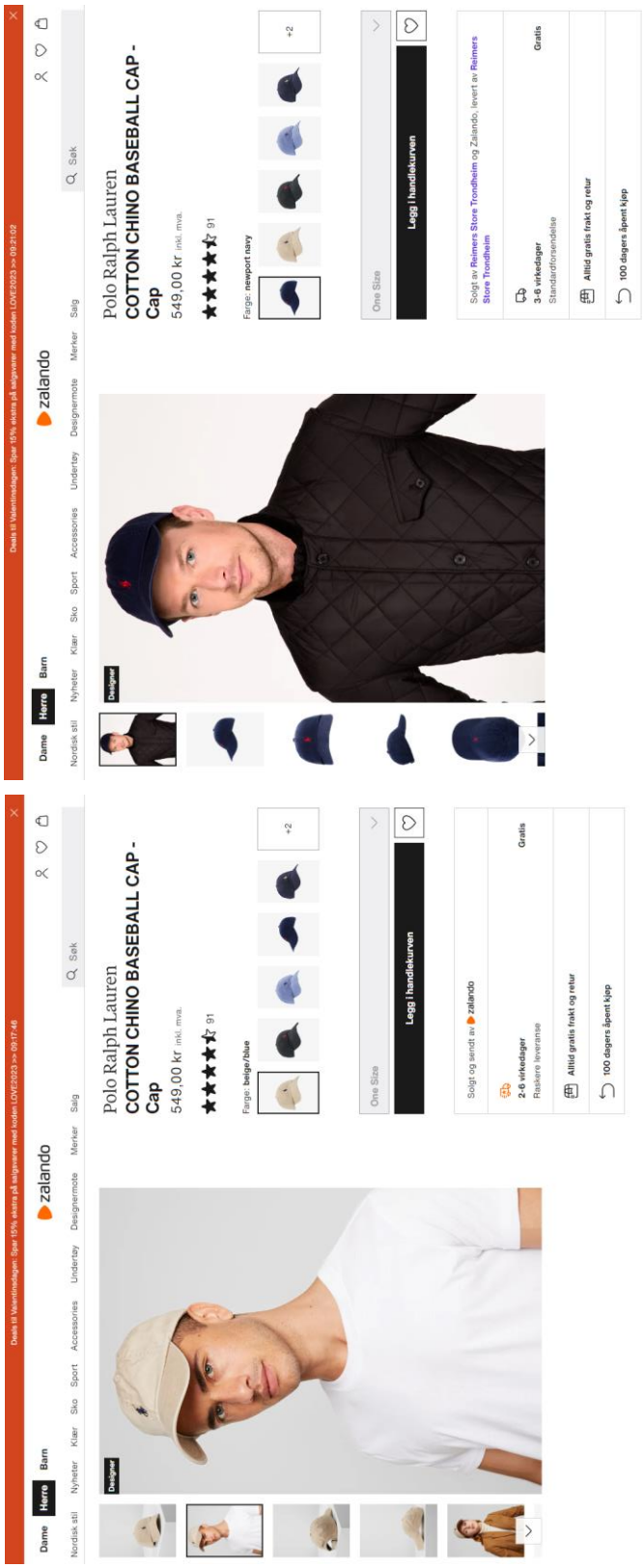
Summary **(2-3 min / 1t 42min-2t 13min)**

Optional. In light of this conversation today: Would you say that shopping one [the platform] has led to any changes in shopping in total for you? How do you navigate concerning a purchase, what demands do you set to information, quality and service?

Closing **(2 min / 1t 44min-2t 15min)**

Closing of interview, answering any questions from the interviewees, hand out incentives for participation.

Appendix 8: Head on competition between complementor and platform provider



Value Creation in Digital Marketplace Platforms Behind Bezos' Napkin and Beyond
Richard Reinsberg

Doctoral dissertations at the University of South-Eastern Norway no. 194

ISBN 978-82-7206-858-4 (print)
ISBN 978-82-7206-859-1 (online)

usn.no