Value-creating and value-eroding decoupling in B2B platforms – a multiple case study

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Abstract

Platforms are increasingly changing customer behaviour with major implications for existing value chains and business ecosystems. For instance, platform players typically act as both complementors and competitors to incumbents through the business model innovation of decoupling (i.e. the breaking of links in customer processes). The objective of this chapter is to identify, describe, and analyse how business-to-business (B2B) platforms utilise decoupling to disrupt value creation in business ecosystems. Theoretically, this chapter builds upon the literature on business model decoupling, value creation, and B2B platforms. Empirically, we utilise 14 case studies of Finnish small and medium-sized enterprises (SMEs) that offer knowledge-intensive business services through their own or partnering platforms. The broad selection of cases illustrates the different types of decoupling (including value-creating and value-eroding activities) that target different stages of the customer processes. The cases represent different industrial sectors, such as construction, education, software, artificial intelligence (AI), and industrial Internet of Things (IoT). We contribute to the current literature on business model decoupling by extending the focus to a B2B context. We further demonstrate how decoupling is a more complex phenomenon in the B2B context compared to business-to-consumer (B2C) markets. Our analysis shows that B2B platforms are targeting multiple stages of customer processes to successfully create value for customers, stakeholders, and the business ecosystems. B2B platforms can also decouple value-eroding activities by removing time, place, and resource constraints. We conclude the chapter by suggesting an agenda for future research and providing implications for managers.

Keywords: platform business model; business-to-business; case study; decoupling; business model; value creation; qualitative research

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Introduction

Digitalisation has brought about the rise of platform business models in many industries (Mody et al. 2020; Van Alstyne et al. 2016). A platform is a type of digital intermediary which enables interactions and/or transactions between two or more distinct groups of users (McIntyre & Srinivasan 2017). Platform business models can exhibit innovations that have implications for multiple industries (Cusumano et al. 2019). They transform industries such as retailing (Hokkanen et al. 2021) by innovating the mechanisms and channels of distribution and value delivery (Crittenden et al. 2017). Examples of successful business-to-consumer (B2C) platform business models include social media (e.g. Meta, Twitter, and YouTube), collaborative consumption (e.g. Airbnb and Uber) and marketplaces (e.g. eBay and Alibaba).

Platforms disrupt competition in new ways by typically acting as both complementors and competitors to incumbents. Against this backdrop, platform business models provide an interesting context to study decoupling – the separation of two or more previously linked customer value-creating activities (Leavy 2021; Teixeira & Jamieson 2014). While platformisation has been previously studied from the business model perspective, no research has of yet analysed it through the conceptual lens of decoupling. Decoupling would represent a more customer-oriented approach to platform business models, as it highlights the role of customer value and customer processes (Leavy 2021). This chapter aims to fill this gap and bring a balanced perspective to the literature on platform business models. Thus, joining the researchers who analyse platforms from the business model perspective (e.g. Hagiu & Wright 2013; Yrjölä et al. 2021) enables us to look at the processes of value creation and value capture from both a firm-centric viewpoint and a broader viewpoint that considers platform actors and interconnected activities (Gawer & Cusumano 2014; Ondrus et al. 2015).

The objective of this chapter is to identify, describe, and analyse how business-to-business (B2B) platforms utilise decoupling to disrupt value creation in business ecosystems. This objective is met by utilising 14 case studies of Finnish small and medium-sized enterprises (SMEs) that offer knowledge-intensive services through their own or partnering platforms. We contribute to the current literature on platform business models and business model decoupling by extending the focus to a B2B context. This is important because value creation is inherently

different and more complex in business markets, meaning that decoupling can take on new forms not yet seen in research focusing on consumer markets.

The rest of the chapter is organised as follows: First, the chapter discusses the literature on business model decoupling, value creation, and B2B platforms, building a tentative framework on the phenomenon. Next, the methodological choices and procedures are outlined. A presentation of the analysis and findings follow. The chapter concludes with a discussion together with implications for managers and a research agenda.

Theoretical Framework

Business model as a lens to value creation

Businesses exist to create value for customers and other stakeholders while seeking to capture some of this value in terms of cost savings, added revenue, and valuable information. This value creation and value capture can be understood through a firm's business model (Arend 2013; Osterwalder & Pigneur 2010; Richardson 2008).

For the purposes of this chapter, a business model is defined as 'a representation of a firm's underlying core logic and strategic choices for creating and capturing value' (Shafer et al. 2005, p. 202). Business models are therefore strategic tools that represent a firm's business logic and enable its managers to explore market opportunities (Doganova & Eyquem-Renault 2009; Magretta 2002). Business model innovations enable competitive differentiation by matching external opportunities with internal strengths (Amit & Zott 2012; Teece 2010).

The internet and other advances in technology have allowed companies to find novel ways of creating and capturing value (Haucap & Heimeshoff 2014; Mattila, Mesiranta & Heikkinen 2020; Mattila, Yrjölä & Lehtimäki 2019; Yrjölä, Hokkanen & Saarijärvi 2021). Already the earliest business models allowed a wide range of innovations that encouraged value creation by supporting parts of the value chain (e.g. payment handling) or integrating multiple parts of the value chain (Amit & Zott 2001; Timmers 1998). One example would be unbundling, where content that has been previously sold together is now made available for purchase in smaller packages (e.g. instead of buying an entire album, a consumer can now simply buy individual songs). Industries such as music, video, and print media have been hit hard by business models that unbundle products for customers (Papies & van Heerde 2017). Another example is the business model innovation of disintermediation: eliminating 'middlemen' in industries such as air travel, financial services, and vacation packages (Clemons & Lang 2003; Haucap & Heimeshoff 2014; Leavy 2020). Many of these business

model innovations specifically target customers and end users, inspiring Dawar (2013) to note that competitive advantage seems to be moving downstream in value chains.

Platform business models represent an opposing force to disintermediation – as they are digital intermediaries or meta-organisations – that allow organisations and other actors to pool together and coordinate resources for value creation and capture (Cusumano et al. 2019; Gawer 2014; Haucap & Heimeshoff 2014; Mathmann et al. 2017). Platforms can therefore be seen as a new type of intermediary (Hagiu & Wright 2015), competing with or complementing existing value chains and networks (Yrjölä, Hokkanen & Saarijärvi 2021). Due to this ability to transform how customers, suppliers, and other participants interact and transact, platforms have received considerable scholarly attention (Mathmann et al. 2017; Yrjölä et al. 2021).

Parker et al. (2017) characterise the value creation of platform business models as involving *resource orchestration* instead of resource control, *interactions* instead of transactions, and *network effects* instead of sales volume as key value-creating and value-capturing mechanisms. First, in terms of resource orchestration, it is important to note that many platforms do not own valuable resources, and, therefore, their business models can be characterised as 'asset-lite' (Parente et al. 2018). Instead, platforms orchestrate the combination and use of external resources. They create value by enabling interactions between different types of users that otherwise might not be able to interact with each other due to barriers such as transaction costs (Gawer 2014; Hagiu & Wright 2015). This value creation can be based on various mechanisms, such as aggregating supply and demand, offering complementary products or services, and providing protection against parties with asymmetric information or negotiation power (Hagiu & Wright 2013; Van Alstyne et al. 2016).

Second, while many business models focus on selling products and services (transactions), platforms can create and capture value through multiple methods. Platforms can, for example, facilitate innovation, social interaction, and knowledge sharing (McIntyre & Srinivasan 2017). Platform businesses can also focus on production (Thomas et al. 2014). Therefore, while market intermediary platforms, such as eBay and Alibaba, are perhaps the most well-known platforms, it is important to note that platforms need not necessarily take a transaction focus, especially in B2B contexts (McIntyre & Srinivasan 2017; Yrjölä et al. 2021).

Third, the ability of platforms to succeed is typically related to their ability to drive and take advantage of network effects. The network effect refers to the phenomenon where the value for all platform participants increases as the number of participants increases (Van Alstyne et al. 2016; Yrjölä, Hokkanen & Saarijärvi 2021). Therefore, the survival and success of platforms is dependent on their ability to attract a large enough number of high-quality users

(Gawer & Cusumano 2014; Haucap & Heimeshoff 2014). The value propositions of their business models therefore play a significant role as a key motivational mechanism to attract users to platforms (Ondrus et al. 2015). However, a rapid increase in the number of platform participants can sometimes lead to misbehaviour or low-quality platform content, which is why the governance of platform access, rules, and incentives is a key issue for platform business models (Van Alstyne et al. 2016).

Platforms and other business model innovations and strategies can be characterised based on whether they aim to leverage current resources and capabilities or create new ones (Lahtinen et al. 2018; March 1991; Medlin & Törnroos 2015). The former category, labelled exploitation, involves placing emphasis on established and more certain resources, capabilities, and revenue streams, while the latter category, exploration, targets future value creation, which is more uncertain and risk-seeking in nature (March 1991; Medlin & Törnroos 2015). Business model innovations founded on exploitation involve elements such as efficiency, refinement, and execution, while those founded on exploration include aspects such as discovery, innovation, and experimentation (Lahtinen et al. 2018; March 1991).

Decoupling value creation

This chapter focuses on the business model innovation of decoupling (Teixeira & Jamieson 2014). Decoupling is a customer-oriented business model innovation that targets customers' purchase and/or consumption processes. It involves the breaking of links in customers' purchase processes and creating value in one or more customer activities, while leaving the rest of the customer processes untouched (Leavy 2020; Teixeira & Jamieson 2014). Decoupling can therefore be seen as a new type of competition: the company that decouples one or more customer activities will only compete in terms of those activities (e.g. customer search) while leaving the rest of the activities to the incumbent market leaders (Leavy 2020).

Decoupling, driven by digitalisation, is affecting multiple industries, such as retail, video game, and transportation (Leavy 2020). For instance, in the dawn of multichannel and omnichannel retailing, the practice of 'showrooming' effectively decoupled the activity of touching and testing of products in physical stores from the activity of purchasing the products (Gensler et al. 2017; Yrjölä et al. 2018) – meaning that many brick-and-mortar retailers were left with offering customer service offline while the customers made orders online from competitors (Yrjölä, 2014). Moreover, digital content has enabled disruptions related to music, entertainment, and gaming, as mobile and online services have decoupled customer activities in these industries (Cusumano et al. 2019; Leavy 2020). Given decoupling has previously been

studied exclusively in B2C contexts, such as music and news (Clemons & Lang 2003) or video games (Leavy 2020), the current chapter contributes by analysing companies in B2B markets.

When designing business models, managers make assumptions and have expectations regarding the behaviour of customers and competitors (Teece 2010). Often at the early stage of business model change, it might be difficult to assess the economic potential of a decoupling innovation (Pieroni et al. 2021). Regarding decoupling especially, the focus is on customer processes (Teixeira & Jamieson 2014). These processes can be purchase processes (as in the showrooming example) or consumption/production processes (as in the case of streaming services). To drive innovation efforts, managers must carefully evaluate the decoupling potential of different resources and activities (Pieroni et al. 2021). Decoupling can thus be divided into value-creating decoupling, value-eroding decoupling, and value-charging decoupling (Leavy 2020).

Value-creating decoupling involves breaking the links between two value-creating activities and performing one of them. Leavy (2020) gives the streaming service Twitch.tv as an example here: the company leaves the activity of 'playing games' to incumbents, while it decouples the activity of 'watching games' to itself. In cases where value creation is relatively expensive (e.g. in cases where incumbents have previously controlled costly physical production and distribution channels), new entrants are likely to find opportunities to decouple and offer some value-creating activities at a lower cost (Clemons & Lang 2003).

Value-eroding decoupling refers to breaking the links between value-creating and value-eroding activities that have typically been coupled in the industry (Teixeira & Jamieson 2014). For example, Steam, a video game digital distribution platform, has decoupled the value-creating activity of playing the game from the value-eroding activity of having to purchase it from a physical store (Leavy 2020). Many circular economy business models act as examples of value-eroding decoupling as they decouple resource consumption from the value created by the resources (Pieroni et al. 2021).

Finally, value-charging decoupling involves breaking the links between value-creating and value-charging activities, in essence, letting customers enjoy certain activities free of charge. This type of decoupling is typical for B2C digital content that offers disruptive pricing models, for example, Supercell giving mobile games for free, while charging for in-app purchases of add-on content (Leavy 2020). Another example would be companies offering consumers free content that they previously had to pay for, such as news and music, while building their business models on alternative revenue streams (Clemons & Lang 2003).

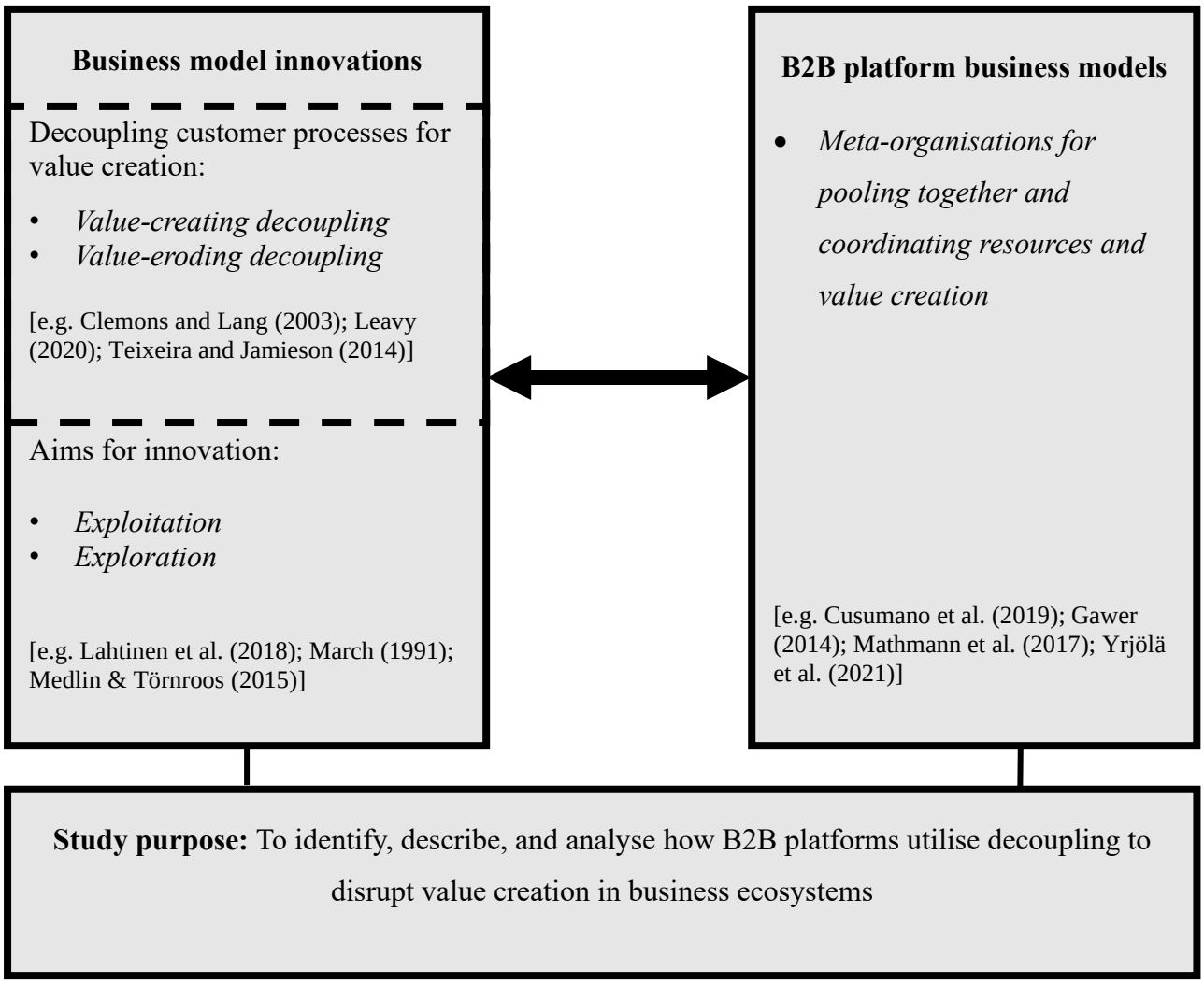

Figure 1. Preliminary framework for decoupling in B2B platform ecosystems

Source: The Authors

Building on the above theoretical discussion, a preliminary framework is constructed. This framework is presented in Figure 1.

Research Methodology

To empirically explore the value-creating and value-eroding decoupling in the context of B2B platforms, we adopted a multiple case study strategy due to its potential to achieve a holistic – yet reasonably detailed – real-life understanding of the fragmented research phenomenon under

study (Eisenhardt 1989; Stake 2005). We utilised qualitative interview data generated from several Finnish knowledge-intensive enterprises as part of a research project focusing on B2B sales in the digital and ecosystem era between 2019 and 2021. The interviews were conducted with enterprise representatives all of whom either held executive positions or otherwise had decision-making authority on activities related to the firm's platform business at the time the interviews were held. All interviews were conducted online, recorded, and then transcribed.

For this study, the enterprise cases were selected based on the following criteria. First, because of the previous research emphasis on large B2C companies, we decided to use the definition of SMEs followed by the European Union (European Commission 2003) and chose only those knowledge-intensive enterprises that are SMEs and operating in the B2B market. We also focused solely on firms that have their own digital platform or provide products/services to their business customers' digital platforms. Finally, we only selected those firms that were perceived by the authors of this chapter to strongly exhibit instances of the business model innovation of decoupling. Therefore, those firms that were identified as only providing comprehensive solutions for customers were omitted from further investigation. The resulting 14 enterprise cases, anonymised for reasons of confidentiality, are summarised in Table 1.

Table 1. Summary of Cases and Conducted Interviews

Case enterprise (Year founded)	**Industry** (Turnover in million Euros, no. of personnel in 2020)	**Interviewee's position**	**Date of the interview** (Duration of interview)
Alpha (2015)	Software/AI (0.7 M€, 7)	Head of Business Development	25 May 2020 (01:07:31)
Beta (2019)	Business Consultancy (0.1 M€, 1)	Chief Executive Officer	17 December 2021 (01:01:34)
Gamma (2016)	Software/Industrial IoT (2.3 M€, 25)	Chief Executive Officer	26 May 2020 (01:00:59)
Delta (1998)	Software/Industrial IoT (0.4 M€, 13)	Chief Executive Officer	27 May 2020 (01:02:43)
Epsilon (2017)	IT Consultancy (1.9 M€, 18)	Chief Executive Officer	12 November 2021 (01:07:57)
Zeta (2013)	Business Consultancy (0.3 M€, 6)	Chief Executive Officer & Partner	10 February 2021 (00:49:50)
Eta (1990)	Construction/Consultancy (2.3 M€, 29)	Chief Executive Officer	11 December 2019 (01:10:38)

Case enterprise (Year founded)	**Industry** (Turnover in million Euros, no. of personnel in 2020)	**Interviewee's position**	**Date of the interview** (Duration of interview)
Theta (2001)	Software/Industrial IoT (1.8 M€, 24)	Chief Executive Officer	26 June 2020 (00:55:37)
Iota (2013)	Software/IT Consultancy (25.1 M€, n/d)	Chief Executive Officer	11 November 2021 (00:59:54)
Kappa (2020)	IT Consultancy (n/d)	Chief Executive Officer	12 February 2021 (00:52:28)
Lambda (2017)	IT Consultancy (4.5 M€, 19)	Chief Executive Officer	10 March 2021 (00:58:25)
Mu (2013)	Cleantech/Consultancy (0.2 M€, 6)	Chief Executive Officer	21 February 2020 (01:08:01)
Nu (2011)	Software (n/d)	Chief Executive Officer	27 February 2020 (00:52:46)
Xi (2015)	Software/IT Consultancy (0.6 M€, 12)	Chief Executive Officer	21 February 2020 (00:56:54)

Note: n/d = no data; IoT = Internet of Things

Source: The Authors

The analysis and interpretation process of the transcribed interviews was highly iterative, including both separate and joint activities of data coding, sorting, and writing. The process started with a meeting where all authors of this chapter discussed the relevancy of the enterprise cases in terms of assessing the suitability of the generated interview data for exploring value-creating and value-eroding activities taking place in B2B platforms. This discussion was facilitated by the authors' preunderstanding of the data, as some of them have been utilised in joint scientific publications (Mattila, Yrjölä & Hautamäki 2021; Yrjölä et al. 2021). In this meeting, the authors made a preliminary identification of the different customer processes that the digital platforms were changing or replacing.

After the first joint meeting, the second and third authors read the transcriptions separately and marked interesting aspects related to value-creating and value-eroding decoupling in digital B2B platforms. These markings and related data excerpts were then jointly discussed with the purpose of identifying and detailing the key themes. Thematic analysis was adopted because of its flexible orientation to coding and the development of themes (Brown & Clarke 2006). The subsequent detailed analysis included several joint meetings during which conflicting or otherwise deviating viewpoints were openly deliberated

to achieve commonly agreed understanding of the key themes. This phase can be seen as a convergence mode of triangulation (Farquhar, Michels & Robson 2020) wherein subjective views and interpretations were contrasted to clarify the findings. Finally, the analysis resulted in the identification of several key themes related to value-creating and value-eroding decoupling in B2B platforms that are discussed in the next section.

Findings

Focusing on the adoption and use of digital platforms by the case enterprises and their customer companies, our data analysis identifies four key themes for value-creating decoupling in B2B platforms: supporting operational decision-making, searching information and assessing alternatives, predicting maintenance needs, and enabling supplier network relationships and three key themes for value-eroding decoupling: offering pre-made digital B2B platforms, digitalising previously physical activities, and enabling efficient competence and expertise sourcing. These seven identified key themes are elaborated in the following section.

Value-creating Decoupling

The analysis demonstrates that digital B2B platforms are currently replacing several activities in customer processes and, consequently, disrupting existing value creation logics. The analysis highlights such value-creating decoupling activities where digital platforms are adopted and used with the aim of achieving improved performance (i.e. operational and cost) efficiencies. Thus, decoupling in a B2B market involves more than focusing on one or more of customers' purchasing and consumption activities (cf. Leavy 2020; Teixeira & Jamieson 2014). In particular, the data analysis identifies supporting operational decision-making, searching information and assessing alternatives, predicting maintenance needs, and enabling supplier network relationships as the key themes for value-creating decoupling in digital B2B platforms. These four key themes are discussed next.

Supporting Operational Decision-making

The first identified theme of value-creating decoupling is the ability of the digital platforms to *support operational decision-making*. According to our data analysis, this support occurs through two main mechanisms: by providing data to customers that they cannot themselves produce or improving customers' data usage.

Regarding the first mechanism, the majority of interviewees reported how they are targeting customers who are now either running or planning different digitalisation projects

and, consequently, are willing to invest in advancing data-driven decision-making in their organisations. The following excerpt exemplifies customers' needs for improved data usage in operational decision-making:

> *In one production site, we managed to improve the production lead time by over 3% by verifying from data where they had a bottleneck in production. They thought that it would be somewhere else. Well, we collected data from the entire line of industrial robots, and then we managed to see from data and factually show that 'this is your bottleneck. Fixing this would increase your lead time 3% on an annualised rate'.* (Beta)

Several interviewees also emphasised that their platforms are facilitating the production of (visual and/or textual) data for their customers. Depending on the customers' needs, data are generated from the customers' internal systems or derived using their own, partners', and/or public sources. The interviewees perceived these data to be valuable for their customers when making production-related decisions as in the case of manufacturing where different platform solutions enable customers to, for example, *'see an average reliability percentage of deliveries […] you can utilise aggregated data [formed from all firms using the case enterprise's platform] in setting up new factories'* (Kappa), *'monitor a pump, compressor, railroad track, or other device'* (Delta), *'collect automatically and continually data from big machines and devices'* (Theta), or *'bring several parameters to production decisions that are currently limited to product price'* (Kappa). Also, data were considered valuable for marketing communication-related decisions and decisions concerning end customers' consumption experiences, as illustrated in the following quote:

> *For example, shopping malls are fiercely competing [in a certain area of Finland]. They want to track what is said about them in social media. This kind of data are valuable for them. They can use that to change activities in some ways, be that marketing or other communication, or even update how they guide people in shopping malls*. (Epsilon)

With respect to the second mechanism of improving customers' data usage, some case enterprises especially highlighted customers who are willing to *'move away from these kinds of purely technical discussions and focus more on how these [platforms] can be utilised'* (Beta). These customers were perceived as being able to not only generate such data but also utilise them to improve their operational performance. The excerpt below by Beta exemplifies the perceived importance of data usage in operational decision-making processes:

> *The value of AI is not that you know what happened last time – historical knowledge – but that you can tell how much you are going to sell next month with existing selling activities or how much you will lose sales because you have X number of internal meetings that take away time from serving your clients. I mean, if you only use data for verifying that things are going well or what has happened in the past […] competitiveness comes from understanding that if 20% of our internal meetings would be removed from our management model, it would leave this number of more hours to our sales efforts and serving clients. Or, based on data, we can estimate that minimizing 25% of our internal meetings we can increase our turnover by 25% because of this and that within this time frame.* (Beta)

Also, enterprises are providing advanced technological solutions such as AI to B2B platforms that allow customer companies to improve their data usage. The following interview excerpt exemplifies this notion:

> *We make the customer's data more valuable. They have data on experts; we improve its usage. To speed up and improve recruitment processes, I mean, we enable higher quality searches so that it would not be subjective and based on human labour. You know, less searches based on human eyes and more machine-based, objective results, and then the human can still look at it. Their business will be more effective, remarkably faster, and the search results are much better. We improve the quality of data through machine-based operations.* (Alpha)

Searching Information and Assessing Alternatives

The second identified theme, *searching information and assessing alternatives*, focuses on how digital platforms enable more effective information search and related assessments. From our data, we could see that the digital platform solutions offered by Alpha, Iota, Lambda, and Xi were facilitating customers' information search and related assessments in the areas of innovation and business development, expertise recruitment and competence development, and customer/firm contacts and improved customer experiences. Using the case firms' B2B platforms, customers were able to access various private and public data sources, pool information based on their current or envisioned needs, and assess the alternatives. Hence, the digital platforms provide effective means for customers, for example, to *'intelligently connect*

actors and data that flow between them' (Beta), *'enable them to become more agile in their operations'* (Lambda), and acquire *'strategic market insights'* (Xi).

Further, with the digital platforms, customers are able to not only pool information based on their current situation or needs but also generate an outlook for their near future. This future-oriented information search and its ability to provide feasible alternatives is illustrated in the excerpt below:

> *It* [case enterprise's platform] *has a machine learning algorithm, which starts searching companies with similar information* […] *This features different models, so by experimenting and finding the right way to search and find actors that fit the firms' current situation […] we can now provide a little outlook around the corner, to future, I mean, what companies may need within half a year from now.* […] *It is valuable that we can see what they need in the next year or half a year to come* […] *Data processing is evolving in a direction where we dive deeper into customer relationships. We go to customer's own data, and we will enrich it further* […] *if we see, for example, that [a large multinational company] wants to build a research centre in [place], we can search information about existing* [schools] *whether they can provide the needed training.* (Lambda)

Predicting Maintenance Needs

In the third identified theme, *predicting maintenance needs*, value-creating decoupling takes place when an anticipation phase included in the maintenance processes of production is replaced by real-time data analytics that digital platforms provide to customer companies via, for example, technologies that are integrated into customers' production systems. Overall, several of the case enterprises are currently providing cutting-edge data expertise to their customer companies facilitating the digitalisation of existing business processes. This concerns, for example, scalable industrial Internet of Things (IoT) platform solutions for manufacturing companies to *'move from an old-fashioned automation to this kind of futuristic architecture'* (Gamma). While facilitating customer efforts for *'digitalising the whole knowledge surface'* (Eta), our analysis shows that data produced by platform solutions enable the generation of more detailed and accurate estimates of customers' maintenance needs and, consequently, improve customers' asset management. The following excerpts from the interviews exemplify this observation:

> *Our platform aims to maximise machine health. Instead of speaking about maintenance control, we speak about lifecycle governance […] what needs to be done, who needs to do it, and when? The idea is to simplify the task so that the device gets appropriate maintenance, care, and attention when it is needed and then we can ensure that it does not break down. […] The resulting measured value is that the device produces more, runs optimally, lasts longer and doesn't break down too early. Basically 90% of all breakdowns can be traced to operator or human error. We can remove these. […] We speak about a change of logic in the [maintenance] process, you don't need to go to that machine but, instead, we produce remote consultation and automation. […] digital platforms take ready-made digital data and start mining them*. (Delta)

> *One [use case] is based on this kind of IoT data. If an abnormal situation emerges […] an alert will follow. […] So, we send a message that now this kind of abnormality has occurred. This message is for an administrator that 'Hey, now you should go and see it, your machines may break in a moment'. A threshold value has been exceeded*. (Epsilon)

Enabling Supplier Network Relationships

The fourth identified theme, *enabling supplier network relationships*, focuses on the ability of digital platforms to support long-term network relationships of business actors operating on the platforms. Hence, and besides replacing certain processes included in supply chain management such as supplier scouting, digital platforms can support leveraging collective strength in the form of long-term supplier network maintenance. As the data expert below illustrates, this can occur when companies not only enrol their supplier partners to digital platforms and interact with them on the platforms but also receive more refined information (produced by the digital platforms) that further assist their efforts in developing and maintaining fruitful supply network relationships:

> *We embarked with the thought that marketplace and platform functionality are not the primary drivers in a manufacturing context. Instead, they need to smoothly work as built-in and integrated with supply chain functionalities and tools. Therefore, we started with giving tools that these professionals need so they can effectively handle their own purchasing and production chains and*

> *collaborate with their partners. This collaboration is, in a way, the marketplace function, I mean, if you collaborate with existing partners, well that's not a marketplace, it's a closed system. On [the platform] you can collaborate both with your existing partners and all other companies that can be found on it… you bring your existing suppliers to it, you are not replacing or changing your suppliers, you just get a better tool to manage existing suppliers and compare them. At the same time, it forms data from them – key performance indicators from every firm*. (Kappa)

Value-eroding Decoupling

Four case firms (Iota, Mu, Nu, and Zeta) utilised value-eroding decoupling in their operations. In the analysis, three different themes for value-eroding decoupling were identified: 1) offering pre-made digital B2B platforms, 2) digitalising previously physical activities, and 3) enabling efficient competence and expertise sourcing. These three themes are elaborated next.

Offering Pre-made Digital B2B Platforms

In the first identified theme, *offering pre-made digital B2B platforms*, value-eroding decoupling is utilised to reduce customers' sacrifice of time and their need for specific resources, such as IT capabilities and coding. Traditionally, firms that have wanted to set up their own digital B2B platform have had to do it ab initio. This requires specific capabilities and resource-heavy activities such as planning and testing the architecture and coding the platform. Two case enterprises (Zeta and Mu) cater to this need with white label offerings (i.e. offerings that can be rebranded by other companies). They thus decouple the link between sacrifices needed to set up a digital B2B platform and the value involved in running a platform business model:

> *We have built this […] platform, which can meet the different situations and needs of our customers. Our customers want to build a digital education business through a ready-made platform. Currently, the business situation is that we are selling our own educational programmes through this platform, and we are also selling the platform itself. For example, we are building an entire training program with a customer service consulting company for their needs on the platform*. (Zeta)

Digitalising Previously Physical Activities

In the second identified theme, *digitalising previously physical activities*, value-eroding decoupling occurs in a rather analogous form compared to the example of Steam discussed in the theoretical part of this chapter (Leavy 2020). Two of the firms base their business on digital learning, meaning they are decoupling the link of time and place constraints of traditional teaching by offering impactful teaching through a digital platform. Naturally, digital learning as such is not a novel idea. However, what makes these cases interesting is that both these organisations have also been able to include the pedagogical and social aspects of learning, essential in traditional face-to-face learning, into the digital platform environment, thus providing the benefits of traditional face-to-face teaching but at the same time removing the time and place demands. Furthermore, the firms have been able to enrich the learning experience with digital tools such as tracking individual learning.

> *If you think about digital learning, it is done extremely poorly globally. And usually, it means taking classroom material and storing it on some digital platform, whatever it is. And then it doesn't matter if it [the teaching material] is lying somewhere in Moodle or Dropbox or something because if it doesn't have any pedagogical service design, you only have the same material in a new channel. And that will not deliver any results. The biggest problems with digital learning are that there is no support, no guidance, and no social interaction. If it's done from an administrative perspective, then it doesn't focus on the learning itself. And in a way, this kind of online pedagogical perspective is very often missing.* (Nu)

Enabling Efficient Competence and Expertise Sourcing

In the third identified theme, *enabling efficient competence and expertise sourcing*, value-eroding decoupling occurs in the field of recruitment. Two of the case enterprises (Iota and Mu) base their business logic on detaching the link between traditional sacrifices related to sourcing experts and specific competencies (e.g. time, money, and uncertainty) and successful recruitments by offering a B2B platform that enables finding a suitable expert with one click:

> *Our business idea was born. There is a need for a digital platform that can effectively bring together the know-how of experts and different solutions that meet various customer needs. […] we started as a networked expert organisation to solve those challenges. Previously, we worked as a consultancy firm that has a network of experts and links them with problems. In this linking, we utilised our*

> *platform as it was at the time to find the right experts. The platform also has the possibility to bring the customers, their problems, and their stakeholders together. […] But this has probably been the main idea all along, that we've been thinking how much more efficient and faster you can be, how can we scale and solve these global challenges. […] Now for 6 years we have been developing our own solution and technology platform for this problem, so that customers' problems can be solved more effectively by bringing the right experts from different organisations and companies around the problem, and we act as an intermediary in it.* (Mu)

In addition to making sourcing for expertise easier and faster, the platform solutions utilise algorithms and AI to provide even more efficient 'matchmaking' services for customer companies and experts. For instance, one firm offers two sets of intelligent search engines for differing needs. On the digital platform, the customer may search for experts using the basic 'Tinder-like' search or the more advanced 'engineering-like' search, which allows for more precise search terms.

> *There will be two versions of the* [search engine]. *One very easy to use, light, 'Tinder-like' and one 'engineering' version […]* [In the Tinder-like version] *you can search using, for example, one keyword. The keyword can be a role, a skill, an industry – whatever. So, you can with one keyword just click and search and that's it. And then in the engineering version, there are fields that can be filled from location to starting date. Then if you take Java coding experience as an example, there will be two more footnotes, one for years of experience, meaning what is sought and wanted, and another one for weight, meaning if this [Java experience] is necessary, nice to have, or something in between. So, it is very easy to use, more refined, and based largely on the parameters that we have seen during the 10 years of dealing with these assignments [finding experts]. In some cases, weighting is very important and you need to be able to express them [weights], and of course, the more accurate the search specs are, the better matches you can get.* (Iota)

In sum, the above analysis and accompanying data quotations illustrate how B2B platforms utilise decoupling to disrupt value creation in business ecosystems.

Discussion and conclusions

This chapter set out to analyse how B2B platforms utilise value-creating and value-eroding decoupling to disrupt value creation in business ecosystems. Theoretically, the chapter is founded on the literature on business model decoupling, value creation, and B2B platforms. Empirically, we utilised 14 case studies of Finnish SMEs that offer knowledge-intensive business services through their own or partnering platforms. Based on the qualitative interview data generated, we identified and analysed seven types of decoupling used by the analysed enterprises. Four of these themes related to value-creating decoupling in B2B platforms: supporting operational decision-making, searching information and assessing alternatives, predicting maintenance needs, and enabling supplier network relationships. The remaining three themes involved value-eroding decoupling: offering pre-made digital B2B platforms, digitalising previously physical activities, and enabling efficient competence and expertise sourcing. The analyses of these themes spark interesting contributions and implications.

First, the chapter contributes to the studies of decoupling by extending them into the B2B context. Our findings demonstrate how decoupling is a more complex phenomenon in the B2B context compared to B2C markets. In consumer markets, decoupling takes on simpler forms because consumers' value-creating processes themselves are relatively simple when compared to how businesses create value for themselves. The value-eroding and value-creating decoupling innovations identified in this study therefore target relatively broad areas of customer processes, involving multiple interconnected activities (e.g. predicting maintenance needs by monitoring production machinery).

Second, our study highlights how decoupling is a useful lens for analysing digital platforms. It moves beyond the notions of intermediation and disintermediation and suggests a more nuanced understanding of the ways in which digital platforms can disrupt competition and value creation. For instance, while some of the findings of this chapter highlight the role of platforms in matchmaking (e.g. enabling efficient competence and expertise sourcing), others involve maintaining long-term relationships, improving decision-making and operations using data, and using platforms to digitalise physical activities.

Third, the seven types of decoupling identified in the analysis provide a useful starting point for future research into value creation in business ecosystems. Based on our analysis and

reflection of the findings, we put forth the following framework for decoupling in B2B platforms (Figure 2).

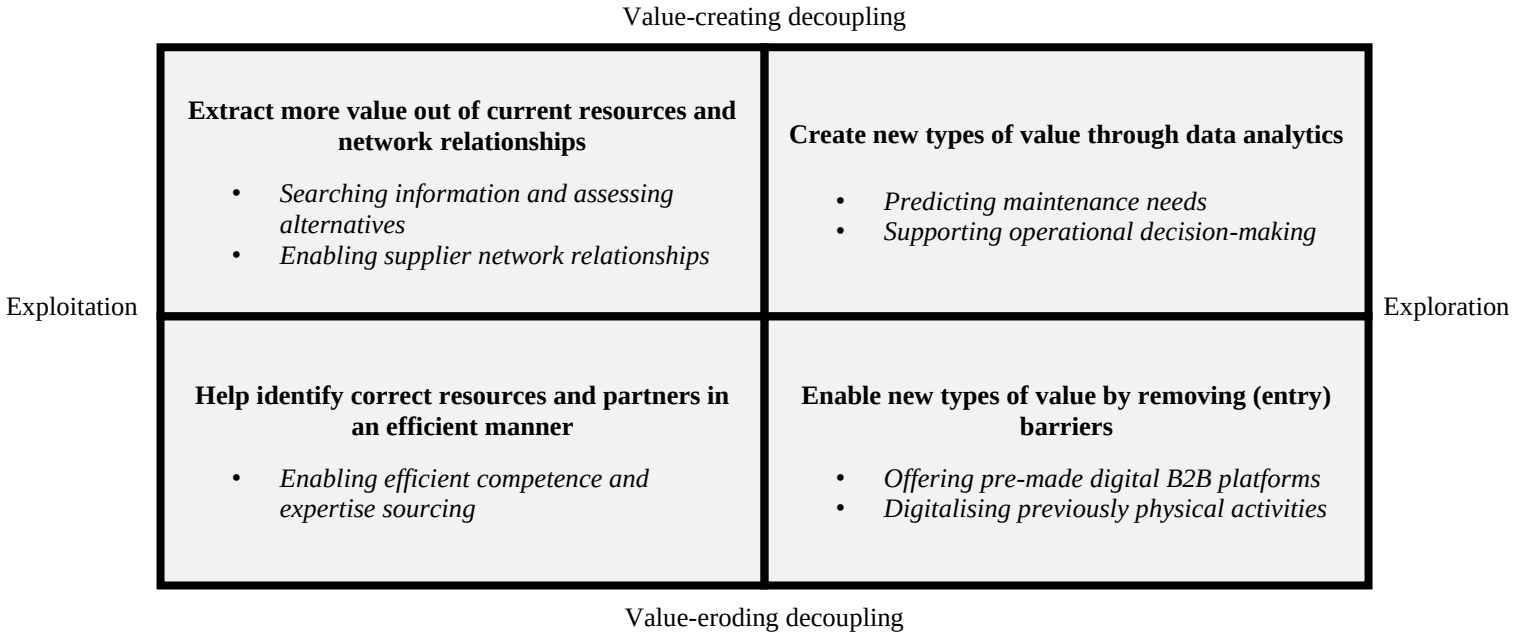

Figure 2. Decoupling in B2B platforms

Source: The Authors

As shown in the framework, some types of decoupling clearly fall under exploitation strategies, while others rely more on exploration (March 1991). Decouplings that rely on exploitation involve efficiently using existing resources and network relationships (Medlin & Törnroos 2015).

Moreover, based on a reflection of our findings, we put forth the following research agenda (Table 2).

Table 2. Research agenda

Research area	Description	Research questions
Underlying mechanisms of decoupling	While decoupling is a useful lens and a tool for business model innovation, its usefulness is clearly dependent on context (some customer activities and	• Which contextual factors act as drivers for or barriers to decoupling? Are these

	processes are easier to decouple than others). Many of the findings of this chapter involve the use of data and analytics as a driving mechanism for decoupling. It would be valuable to understand these contextual factors more systematically.	factors different for B2B and B2C markets? • What moderating variables can be identified? • Through which mechanisms do companies successfully decouple customer activities and processes?
Decoupling in digital platforms	It should be noted that there are different types of digital platforms (e.g. transaction platforms and innovation platforms). Digital platforms bring together multiple types of actors, which can have different implications for the mechanisms of decoupling.	• How does the type of platform used affect decoupling? Do different types of decoupling (i.e. value-creating or value-eroding) work better with certain types of platforms? • How can decoupling be used as a way to understand value creation for different platform actors and stakeholders?
Temporal lens to decoupling	Decoupling represents one way in which digital transformation is changing competition, but there are no long-term studies on decoupling. Further, the SMEs and start-ups studied in this research have limited resources and it is uncertain whether their decoupling innovations will prove to be successful or not.	• For businesses utilising decoupling, do their value creation broaden or focus over time? • Is decoupling a successful innovation for B2B platforms in the long term or does it represent just one phase in the evolution of these enterprises?

Source: The Authors

Managerial implications

The findings of this chapter, together with the framework in Figure 2, provide implications for managers operating in B2B ecosystems. Managers already operating in the digital platform business or contemplating entry can use the framework as a starting point for strategic discussions. Further, incumbents suspecting that parts of their value creation might be

decoupled by start-ups can use the framework to anticipate possible moves by the competition. As the framework illustrates, value-creating and value-eroding decoupling can be used to drive an exploitation or an exploration strategy.

Four approaches are suggested in the framework. First, in terms of exploitation, companies can use digital platforms to *extract more value out of current resources and network relationships*, thus improving the efficiency of value creation. Second, value-eroding decoupling can be used to drive an exploitation strategy by *helping to identify correct resources and partners in an efficient manner*, thus automating the labour-intensive parts of value creation. Third, value-creating decoupling can be used in an exploratory manner to *create new types of value through data analytics*. In our analysis, we noticed how the data generated on digital platforms represent an untapped source of potential growth and innovation. Fourth, companies can leverage value-eroding decoupling to *enable new types of value by removing (entry) barriers*. Many businesses can potentially be digitalised through the use of modular/white label digital platforms.

Limitations

While the SME context provides a novel environment for studying the decoupling phenomenon, it can also act as a limitation. Most of the case enterprises are tech start-ups, which means they are experimenting with multiple forms of value creation to find a sustainable profit model. Therefore, the business model innovations identified in this chapter are not proven and tested, but instead their viability will be shown over time.

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