

Digital platforms as disrupting business models for internationalization

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1. Introduction

Digitalization has created the conditions for digital intermediaries to emerge and challenge existing industry and value creation structures (Teller et al., 2019). One new type of digital intermediary is digital platforms (DPs), which enable the interactions and/or transactions between two or more distinct groups of users (McIntyre and Srinivasan, 2017). Although DPs emphasize technologies, actors, and the networks they form, DPs represent meta-organizations that enable the pooling together and coordinating of various resources for value creation and capture (Cusumano et al., 2019; Gawer, 2014; Hevner and Malgonde, 2019; Vadana et al., 2019).

Recently, DPs have been approached as business models (BMs), offering a novel way for creating value propositions (Kumar et al., 2018). Here, the processes of value creation and capture expand from a firm-centric view to consider broader constellations of heterogeneous actors and their interconnected activities (Gawer and Cusumano, 2014; Hevner and Malgonde, 2019; Ritter and Schanz, 2019). DPs have also been positioned for excellent international growth opportunities (Parente et al., 2018). Yet many DPs remain locked in their home market or only expand carefully to adjacent markets. One reason might be that international expansions often require changing the business model of the company to be more in line with the culture and practices of the target market (Dalby et al., 2014). Moreover, infrastructure and legislation may hinder the efforts for DPs' international expansion (Jin and Hurd, 2018; Parente et al., 2018), thus sheltering domestic business from international competition (Cabigiosu, 2020).

This chapter focuses on the internationalization of DPs. We identify, analyse, and discuss the drivers for and barriers to internationalization for DPs using a business model lens. Contextually, the chapter looks into B2B platforms, especially among knowledge-intensive business services (KIBS) that provide services to other companies and organizations, including

consulting, research and development services, and legal, technical, and marketing communication services (Abdelzaher, 2012; Strambach, 2008). Key features of KIBS are the knowledge intensity of the service, consultancy orientation, and the interactive nature of the service (Muller and Zenker, 2001). Thus, KIBS involve the provision of (often person-specific, complex, and professional) knowledge inputs to other companies' and organizations' business processes that usually concern high levels of participation and interaction (and, consequently, learning and new knowledge production opportunities).

We use illustrative case examples of Finnish KIBS companies to understand the drivers for and barriers to internationalization. In Europe, the KIBS industry sector has steadily been rising (European Commission, 2012; Strambach, 2008). Surprisingly, KIBS businesses have been cautious to internationalize, even though they would realize financial gains earlier in the internationalization process than BMs with more capital-intensive services (Abdelzaher, 2012; Toivonen, 2002). This might be because of the KIBS businesses depending more on their clients and the efforts and challenges involved in commoditizing or productizing their knowledge (Abdelzaher, 2012; Cabigiosu, 2020; Cabigiosu and Campagnolo 2019; Miles, 2005).

KIBS are both supporters and users of the ongoing platform economy development (Cabigiosu, 2020). Besides helping their clients in enacting the ongoing digital transformation within their companies and enterprises, KIBS have started increasingly sensing and seizing business opportunities provided by digitalization, such as exploring how platforms can help create and deliver new services (Kuula et al., 2018). While previous studies have increased the understanding of the different BMs involved in KIBS' national business activities and international expansion (see, e.g., Braga et al., 2018; McQuillan and Scott, 2015), they fall short of providing analytical insights into the current *platformisation* of KIBS businesses, especially regarding the internationalization of DPs. This chapter fills this gap.

To scrutinize the drivers for and barriers to the internationalization of DPs from a BM perspective, we review the relevant literature on DPs, BMs, and internationalization. Then, using illustrative case examples representing various industry sectors and levels of internationalization, showing the multifaceted process of DP internationalization. We conclude the chapter with a discussion and presentation of future research avenues.

2. Theoretical framework

Digital platforms through the business model lens

DPs—meta-organizations with a stable core and variable periphery (Gawer, 2014)—have received increasing interest among scholars and practitioners. These two-sided or multisided platforms or markets (Sun and Tse, 2009) bring together different participants with varying motivations, roles, and activities—in essence, what Gawer (2014) refers to as the variable periphery of a platform. In this way DPs transform how customers, suppliers, and other participants interact in ways that create value for all participants (Van Alstyne et al., 2016). DPs can, for instance, aggregate supply and demand, offer bundles of complementary products and services, and provide protection in the event that one party has asymmetric information or negotiation power (Hagiu and Wright, 2015).

DPs should not be analysed solely in technical terms. Instead, Vadana et al. (2019) argue that researchers should study how platforms bring together complementary offerings and how they actually create value through activities such as producing, marketing, selling, and providing support services. Therefore, we use the BM concept as a lens for analysing the internationalization of DPs because a BM is a description of value-creating and value-capturing activities and mechanisms (Arend, 2013; Muñoz and Cohen, 2017). More specifically, a BM is “a representation of a firm’s underlying core logic and strategic choices for creating and capturing value” (Shafer et al., 2005, p. 202). The configurations and contents of value

propositions, value creation and delivery, and value capture are complex in platform businesses.

Relating to value creation, most BM conceptualizations incorporate components describing value propositions (e.g., intended customer segment or market, the offering, and types of customer relationships; Johnson et al., 2008; Doganova and Eyquem-Renault, 2009), value creation and delivery choices, value chains and networks (Chesbrough, 2010; Shafer et al., 2005), and partners and channels (Battistella et al., 2017; Osterwalder and Pigneur, 2010; Muñoz and Cohen, 2017). The platform needs to craft value propositions for both platform customers and suppliers/service providers, and in some platforms, there is some overlap between these groups as user roles can become blurred (Kumar et al., 2018). Further, the value propositions for platform customers and suppliers are likely to be vague or undefined because the offering is generally nonstandard (e.g., Parente et al., 2018; Ritter and Schanz, 2019). Moreover, for many platform businesses, the value creation and delivery activities that eventually fulfil the value propositions are performed by different kinds of user groups from both the supply and demand sides (Ritter and Schanz, 2019).

Relating to value capture, common BM components describe value capture mechanisms, such as opportunities, costs and cost structure, pricing schemes, and revenue/profit models (Chesbrough, 2010; Johnson et al., 2008; Doganova and Eyquem-Renault, 2009; Battistella et al., 2017; Osterwalder and Pigneur, 2010; Richardson, 2008; Muñoz and Cohen, 2017). The mechanisms for value capture (e.g., different revenue sources, pricing schemes, and cost structures; Richardson, 2008; Osterwalder and Pigneur, 2010) might also be complex in a platform BM. For instance, some platforms use different pricing strategies for sellers than for buyers (Ritter and Schanz, 2019), while others only charge fees from the less price-sensitive side of the market, usually the sellers (Ritter and Schanz, 2019).

The value creation and capture on platforms can be characterized by simultaneous competition and cooperation among both supply- and demand-side user groups (Van Der Borgh et al., 2012; Pierce, 2009). Further, platforms involve *resource orchestration* instead of resource control, *interactions* instead of transactions, and *network effects* instead of sales volume as key value-creating mechanisms (Parker et al., 2017).

Digital platforms for internationalization

Digital BMs, especially DPs, have their own particular logics for creating and capturing value (Alcácer et al., 2016; Amit and Zott, 2001; Brouthers et al., 2016; Gawer and Cusumano, 2014), making them an interesting topic to study from the point of view of internationalization (Parente et al. 2018). For instance, platform BMs are “asset lite” in the sense that they require little physical resources from the focal company, making it easier for these types of businesses to enter new markets (Parente et al., 2018). Further, Vadana et al. (2019) conclude that although digitalization is presumed to increase internationalization, more research is needed to understand the relationship between the nature of the value chain and value-creating activities in relation to internationalization.

Digital companies might find internationalization easier because they are less constrained physically and culturally than traditional businesses (Luo et al., 2005). Furthermore, research has shown that digital businesses also grow faster internationally and are more successful in international expansion than nondigital businesses (Brouthers et al., 2016; Wentrup, 2016). When the value chain is coordinated digitally, companies can expand faster internationally (Vadana et al., 2019). Moreover, the expansion of digital business is more successful if the company sells niche products or services (Hennart, 2014), which can be explained by a lack of competitive offerings. Digital businesses also perform better in their international operations when they engage in product of service adaptation (see, e.g., Luo et

al., 2005; Reuber and Fischer, 2011). Nonetheless, even with reduced physical and cultural constraints (Luo et al., 2005), some digital companies still need to establish an offline presence in the target market because of legal and market-specific requirements (Wentrup, 2016). For instance, Jin and Hurd (2018) find that firms need local staff for successful market entry and that these local human resources are difficult for firms to obtain merely through DPs.

There is little research into the drivers and barriers to international expansion in a platform BM context. Previous research has shown that DPs are more likely to enter markets in which a large portion of the population uses online and mobile technologies (Luo et al., 2005; Vadana et al., 2019). The internationalization of DPs might initially be resource driven (Ojala et al., 2018); hence, DPs might be driven to internationalize if there are not enough content providers in the home country. Further, market selection and entry modes for DPs depend on finding networking partners who can provide access to the resources needed (Ojala et al., 2018; cf. Johanson and Vahlne, 2009). A key driver for platforms to internationalize might be to generate network effects because the success in a platform market depends on the network effects (Zhu and Iansiti, 2012). Network effects are where each new user of the platform increases the value of the platform for all users (Rysman, 2009), playing a critical role in platforms. Network effects often create a continuous positive feedback loop of new users driving a winner-takes-all situation in which one platform attains a dominant position in the market (Eisenmann et al., 2006; 2011). This is important for understanding how competition, namely the motivation for attaining a first-mover advantage in new markets (Parente et al., 2018; Wentrup, 2016), can drive the internationalization of platforms (Vadana et al., 2019). Moreover, for some platforms, the network effects will not extend across borders (Stallkamp and Schotter 2019).

Regarding barriers to internationalization, the most significant barriers in a platform context identified by Jin and Hurd (2018) involved resource constraints, psychic distance, and

the liability of foreignness. Resource constraints are regarded as one of the most common entry barriers (Lu and Beamish, 2001). Notable resource constraints involve financial capital, time resources, and human resources (Jin and Hurd, 2018). The second group of barriers involves psychic distance, which refers to “factors preventing or disturbing the flows of information between firm and market” (Johanson and Wiedersheim-Paul, 1975, p. 308). The psychic distance can be seen in the differences in culture, infrastructure, and political systems between countries. Third is the liability of foreignness, which arises as a result of the geographical and psychic distance between the home country and the target market (Zaheer, 1995). The liability of foreignness involves uncertainty and unfamiliarity about the target market and consumers’ prejudices against the entering company—all factors that cause additional costs in international expansion (Chen et al., 2006). DPs ease entry barriers for platform users in terms of overcoming the resource constraints of internationalization and facilitating access to networks (Jin & Hurd, 2018). Other important barriers include a lack of technology infrastructure, lack of complementary asset providers, and local regulations (Parente et al., 2018).

To conclude, DPs as BMs differ from other BMs in terms of their value creation and value capture, suggesting that internationalization activities in terms of market selection and entry modes are also likely to be different. Therefore, we put forth the following framework, as depicted in Figure 1. Next, with illustrative case examples, we identify, analyse, and discuss the drivers for and barriers to internationalization for platform-based BMs.

INSERT FIGURE 1 HERE

Figure 1. Overarching framework

Next, we introduce the illustrative case examples.

3. Illustrative examples

The chapter is conceptual, but illustrative case examples are used to highlight different facets of the phenomenon (Nordin and Kowalkowski, 2010). Moreover, the cases show the interaction between the phenomenon and context (Dubois and Gadde, 2002; for similar approaches, see Reinartz et al., 2011; Saarijärvi et al., 2014). The cases represent diverse platforms, including B2B and B2C sectors, with varying degrees of internationalization and diverse offerings (i.e., learning, sustainability expertise, research services, IT consultancy and business development, and construction). Hence, the cases are of secondary importance—they are the tools for understanding the new aspects of the study phenomenon (Stake, 2005). Table 1 provides a short profile of each selected case example. The details provided in Table 1 are based on interviews, company documents, and secondary data sources, such as company websites. Some details are presented in an imprecise way to guarantee anonymity for the case companies.

Table 1. Overview of the selected case examples

INSERT TABLE 1 HERE

Firm A, founded in 2013, focuses on digital learning and offers an online learning platform for companies so that they can hit their learning targets to enable business growth. The platform users can, for example, track participants' stages of learning and the results achieved. The firm has grown steadily over the past four years. Currently, they are planning to build a global partner model for increasing sales activities in abroad. The firm also plans to do an investment round to heavily improve their marketing and sales activities. These plans relate to an observed challenge in selling the product both locally and internationally; the firm has noticed that their clients experienced their offering as challenging because they were not used to digital learning companies that focused on learning beyond an administrative approach. Now, they plan to establish consultative selling and consulting services for clients.

Firm B, established in 2013, aims to solve sustainability challenges with its cleantech advisory services and collaboration platform. The firm's international operations include a European daughter company and a couple of business leads/sales agents operating in the USA. The firm has had international customers from the very beginning and now has clients in 10 countries with over 6,000 experts operating on the platform. The enterprise's value creation focuses on matching experts, companies, and customers to its platform and solving complex (business) sustainability challenges. Key challenges for growth and internationalization have to do with sales and marketing, though the network built so far is continuing to generate new sales. Hence, the firm is developing its digital marketing and sales to enlarge the number of active experts on their platform and to improve SaaS-based business scalability. In addition, the firm has several business model opportunities, for example, discussing their opportunities to sell the DP to other businesses.

Firm C, established in 2017, focuses on offering research and investment solutions for their customers. Since its start, the company has had robust growth. In 2018, the turnover grew over 100% and was around €400,000. Their platform is a closed one, but the company is piloting another, more open platform that aims at easing the organizing and governing of data, resources, and other functions of organizations with their largest clients. Regarding internationalization, Firm C has decided to fix the home base first (Finland and the Nordics) and with its gained credibility move to the rest of Europe. Firm C is now testing many digital marketing activities, including marketing automation for prospecting and emails. Before, the growth was based on traditional selling activities done by one of the founders, and the business focus was on consultation. Now the firm is trying to scale their international marketing and sales operations while concurrently testing their SaaS-based model. Hence, they have recruited employees to increase the internationalization activities in Europe.

Firm D, established in 2002, is a large company when compared with the other cases. Firm D's business area is IT consultancy and business development. The company has experienced robust growth for 15 years in a row. In 2019, the company's turnover grew over 25% (to over 60 million euros) and personnel 18% (580+ persons). The company has expanded its national and international operations through acquisitions. In this way, the company has not only acquired some needed expertise, but also increased its ability to serve its customers in an ongoing digital transformation. Firm D has nine offices in four different European countries. The company has started developing an artificial intelligence-enabled DP, which would improve the company's own business processes, such as matching the competences of its experts with projects inside the company. Ideally, experts working with Firm D could upload their profiles on the platform, from which clients and network partners could search and find the needed expertise. Currently, the platform has been internally adopted. Its external launch is on the way. Firm D has experienced challenges during internationalization processes due to the fact that the organization has not had a strategic plan for internationalization.

Firm E is an IT consultant and development organization in the construction industry specializing in building information modelling (BIM). In 2019, the company's turnover was over €2.5 million, with the business growing every year. Firm E has ambitious internationalization plans to reach a larger market because the domestic market does not offer enough growth opportunities. Through hiring and other initiatives, they are now starting their internationalization process, with already some "proof of concept" project being done abroad. Firm E's DP is a closed platform that offers space, project, and investment management tools for the building industry. However, Firm E has thought of a more open platform for international business, where it could offer additional content. For instance, in Germany, Firm

E has started localization processes to produce the basic template and has brought in partners. They emphasize the importance of modification for each individual market and try to find solutions for scaling.

4. Analysis and discussion

In this chapter, we analyse the identified drivers for and barriers to the internationalization of DPs among KIBS (Figure 2).

INSERT FIGURE 2 HERE

Figure 2. Identifying the drivers for and barriers to DP internationalization

Drivers for digital platform internationalization

Driver 1: A born global mindset (push factor). The first identified driver for DP internationalization is related to the firms' managerial and cultural mindsets: "a born global mindset." Such a mindset involved considering international aspects and international expansion as part of all business decisions and the company's goal. Thus, this driver can be considered a *push* rather than a *pull* factor for the internationalization of a DP. For Firms A, B, and C, this mindset has been clear since the companies were established. For instance, Firm A's very first client was a multinational organization, and the business has been international ever since. This is because of the size of the firm's home market:

You cannot get that kind of position in Finland. Like, you can probably sell a few millions a year here, but if you want it to be a plus 100 million business, you have to build it with a born global mindset all the time. (Firm A)

Interestingly, research in internationalization has shown that managerial cognition—more specifically global and domestic mindsets—influences internationalization decisions, such as the entry modes, chosen by companies (Jiang et al., 2018; Nadkarni et al., 2011). In sum, the managerial and cultural mindsets behind a DP can act as drivers for international expansion.

Driver 2: Specialized niche offerings limit national growth potential (push factor). The second identified driver for DP internationalization relates to the limited ability of domestic markets to provide growth opportunities for the DPs, thus “pushing” KIBS enterprises toward internationalization. This observation echoes previous research on KIBS’ internationalization, which has shown that international expansion helps KIBS businesses surpass challenges arising from their limited domestic markets (Cabigiosu, 2020). Accordingly, our selected case examples emphasized the need to expand to international markets to operate their BM efficiently.

Furthermore, the push for internationalization is closely connected with the specialized expertise and relatively narrow customer segments involved in the DPs. Previous research has shown that KIBS operating in niche markets search for international growth opportunities through a “niche global BM,” that is, replicating their local BMs in international settings (McQuillan and Scott, 2015). This was taking place in DPs’ internationalization, too. For example, Firm E was aiming at simultaneously responding to both local and global needs for streamlining the design and construction of complex buildings. Their plans for internationalization relied on their current, local BM, which involved providing IT solutions to construction (e.g., in project management). This can also be seen to resemble a “global BM” (McQuillan and Scott, 2015) because the aforementioned case’s BM has a project-based focus, diminishing the need for separating their local and international business activities. We will further discuss this niche issue when elaborating on the identified internationalization barrier-related localization.

Driver 3: Need for highly specialized knowledge/experts (pull factor). The third identified driver is related to a need for acquiring and internalizing resources that cannot be obtained

locally. Thus, the perceived availability of resources located outside domestic markets “pull” DP internationalization. Previous research has shown that DPs’ internationalization involves efforts to transcend resource limitations (Oajala et al., 2018). Especially in the IT industry sector (such as Firm D), KIBS have experienced a shortage of skilled (IT) labour, forcing them to search and find offshore experts (Toivonen, 2002, p. 217).

Moreover, previous research has shown the importance of networking capabilities in internationalization, especially regarding (small) firm size (Mort and Weerawardena, 2006). KIBS’ network relationships are closely connected with their internationalization paths, especially for reacting to increased competition, attaining the needed specialized knowledge, and establishing new client relationships (Toivonen, 2002; Abdelzaher et al., 2012). Regarding our case examples (mostly SMEs), network relationships played a crucial role in DP’s internationalization because they enabled improving the service offering targeted for international markets (Firm A) and reaching experts and other relevant partners (including customers) needed to effectively run both local and international business operations (Firms B, C, and D).

Driver 4: Internationalization with customers (pull factor). The fourth identified driver for DP internationalization is linked with an observation made in the previous literature that KIBS’ internationalization is highly promoted by their clients’ international activities or willingness to follow their clients to foreign markets (Abdelzaher et al., 2012; Braga et al., 2018; Toivonen, 2002). All the case companies referred to their (multinational) clients as influential “pull” factors early on in their internationalization process. For instance, Firm D remarked that “International business opportunities have opened for us and are continuing to open up by focusing on the customer first.” For firms B and C, large multinational clients have played a

critical role in international expansion. For example, a large client both acted as a customer and a supplier of expert resources on Firm B's platform.

These observations are related to the discussion on networks and networking capabilities discussed in connection with the previous driver.

Driver 5: Seeking network effects (pull factor). The fifth identified driver for DP internationalization relates to network effects (Zhu and Iansiti, 2012), which have been argued to generate benefits for platform actors, in our case “pulling” KIBS to internationalize. In the KIBS context, collaboration has been positively associated with internationalization (Mort and Weerawardena, 2006). Regarding our case examples, network partners surrounding KIBS have a crucial role in DP internationalization. The internationalization within Firms A–C has been based on previous international business connections. These firms have also noticed the importance of increasing the number of users to their DPs, such as (multinational) expert companies (Firm A). To more effectively attain new user customers to their DPs, these firms have recognized a need to improve their sales activities. This was especially evident in Firm C, which consciously started developing their selling processes. In addition, Firm E, the one taking its early step in internationalization, recognized its remote position in the value chain. Besides a need to change this situation, the firm recognized that it needed to persuade more collaborating partners to the DP. In this way, the firm could increase the attractiveness of the DP over others (competitors), responding to its need for localizing the DP, a first identified barrier to DP internationalization.

Barriers to digital platform internationalization

Barrier 1: Certain platform types require large degrees of localization. The first identified barrier is related to the characteristics of the offering and target market. In the case companies,

it was evident that internationalization of the platform would require changes to the BM, the operating logic, and interface of the platform, along with how the platform would be marketed. This localization would require in-depth knowledge of the target market, including cultural, regulatory, and organizational issues and face-to-face interactions with foreign partners and clients (Miles, 2005). Similarly, Dalby et al. (2014) find that international expansion requires changes to the BM to be more in line with the culture of the target market, especially concerning firm–customer interactions. In a platform context, localization can mean, for instance, providing services and information for experts operating globally on the platform to help with legal and taxation issues (Firm B).

To help in localization efforts, local references were important for both the marketing of the offering and learning about the local business environment (Firms A, B, and C). Moreover, localization was said to be an iterative, ongoing process, as stated by Firm B: “We keep developing the platform as we learn more about our customers.”

Barrier 2: Selling and purchasing of complex services. The second barrier relates to the KIBS context and involves the resources and capabilities needed to both market and sell and purchase KIBS offerings. Customer organizations seemed to lack the knowledge, orientation, and capabilities to define their requirements, compare DPs and their features, and implement and use digital platforms. Especially for Firm A, a significant barrier to internationalization was that their potential customers lacked the required capabilities and know-how to purchase a DP as a SaaS. Alternatively, the case companies seemed to lack the capabilities needed to market and sell DPs. Interestingly, even though DPs represent advanced offerings, we found that the sales activities were organized in a traditional manner. For instance, the representative of Firm C said, “I wish someone would come and tell us the right ways to sell a SaaS service. So far, we have had to experiment with multiple ways,” while Firm B said, “lacking

competences are surely the biggest threat for internationalization.” Overall, selling a complicated and novel offering, such as a DP, will require many interactions between the firm and its clients (Dalby et al., 2014).

To overcome these issues, Firm A focused on improving service design and offering complementary consultative services. Through a structured process involving multiple short workshops, Firm A helps the client set up their first courses on its learning platform. While the case companies have not found the best ways of overcoming this barrier, both Firms A and C are experimenting with methodologies to better understand the customers’ buying barriers. For example, Firm A noticed that their webpage did not fully support the customers’ purchase journey.

Barrier 3: International expansion might require an offline presence. Building trust in close interactions with customers was identified as a requirement for entering new international markets (Parente et al., 2018; Jin and Hurd, 2018). More specifically, Firms B, C, and D were struggling with the need to establish an offline presence in the target market. For example, Firm C commented that customers might prefer local competitors over higher quality international options. Similarly, Firm B remarked, “Of course, physical closeness makes it easier and at times we must meet with a client face-to-face.” For Firm D, the customers often want the experts hired through the DP to work on-site with the customer.

These companies reacted to this challenge in different ways. Firm B has expanded and internationalized through countries and markets they have already had good contact with and that have situated rather close to Finland, going forward from there. Furthermore, even if Firm B has acknowledged the possible advantages of having an offline presence (e.g., a local subsidiary), there were no plans to establish such a presence in target countries because the company feels marketing, communication, and sales can be managed through digital tools and

business trips. Alternatively, Firm C noted that establishing a strong offline presence is a way of generating positive goodwill and opening possibilities for scaling the business later through SaaS offering: “...In international markets we first focus on projects which often bring us positive feedback... After that we try to sell more scalable offerings to our customer.”

Discussion of findings

The identified drivers and barriers are summarized in Table 2.

Table 2. Summary of the identified drivers and barriers

INSERT TABLE 2 HERE

The key drivers for DP internationalization are as follows: (a) attaining first-mover advantages and network effects, (b) locating target markets with enabling technological infrastructure (especially for consumer platforms), and (c) gaining access to new resources. Out of these reasons, the last one was clearly visible in the drivers identified in the case examples, while the second one was perhaps implicitly present, with the first one not showing up at all. Surprisingly, our case analysis did not reveal first-mover advantages as a key driver for platform internationalization, even though it has been identified as a common driver in previous research (Wentrup, 2016). This might be because of the KIBS context, where the sales lead times in such complex offerings might hinder network effects. Because the value purchase and delivery processes take a long time, the results—in the form of customer recommendations and references—will take a long time to emerge, thereby slowing the network effects. A related observation concerning the case companies’ BMs is governance and control mechanisms, particularly the “openness” of the DPs. In terms of platform openness and control, many of the case companies operated rather closed platforms with some control mechanisms in place. This is likely because of the complex nature of the DP offering: reducing fraud, improving matchmaking and negotiating the terms of value creation on a project-by-project basis all

require certain gate-keeping and control mechanisms by the focal company. For instance, Firm B's platform is "free to register," but they manually check every registered user before allowing other users to see them on the platform; this limits the possible network effects in that sales cycles are long and require inputs from multiple sources rather than spreading organically in a viral manner, as is often the case for consumer platforms. Nonetheless, Firms A and C were developing and experimenting with more open DPs.

The key barriers to internationalization are as follows: (a) resource constraints, (b) psychic distance (Johanson and Wiedersheim-Paul, 1975), (c) liability of foreignness (Zaheer, 1995), (d) lacking technological infrastructure in the target market, and (e) lacking complementary service providers for the platform in the target market (Parente et al., 2018). In the case examples, the complementary service providers were actually a driver for internationalization. This might be because of firm size, but it might also reflect the platform context: in platform BMs, the role of external resources is critical. Overall, the barriers identified in our analysis stress the importance of resources and capabilities (whether owned by the platform, its partners, or customers), the complex nature of the offering and value proposition, and combating the liability of foreignness through establishing an offline presence.

Our analysis is exploratory in nature, and the role of future research will be to modify and refine our tentative findings. Specifically, we call for empirical research using a longitudinal analysis of cases to understand how BMs change as platform-based organizations internationalize. One important future research avenue is the dynamic capabilities that create and transform platform BMs as they internationalize. An interesting possibility would be to analyse which of these capabilities are developed in one or multiple locations and how disperse their use is (Lessard et al., 2016). Moreover, there is considerable variety in how KIBS businesses internationalize (McQuillan and Scott, 2015), which is evident in our analysis. Here, an excellent avenue for future research would be to build a typology of the alternative ways in

which DPs internationalize. Finally, considering driver 1, future research into DPs could take a managerial cognition approach. There is some research scrutinizing the differences between global and domestic mindsets on a general level (Jiang et al., 2018; Nadkarni et al., 2011), but the research into these mindsets in the context of DPs is so far lacking.

5. Conclusion

This chapter has identified, analysed, and discussed the drivers for and barriers to the internationalization of DPs. Drawing analytical insights from literature on DPs, BMs, and internationalization, while illustrating these insights with purposefully selected five real-life cases in a KIBS context, the chapter makes the following contributions:

- 1) The chapter is among the first to combine BM literature on DPs with internationalization theory.
- 2) The chapter increases an understanding of the internationalization of DPs, especially in the context of KIBS, by identifying five drivers for and three barriers to internationalization.
- 3) The chapter discusses an ongoing platform economy development in B2B settings—a clear contribution to the platform literature, which has mostly focused on consumer/peer platforms. More concretely, we observe that in a B2B setting, the platforms can benefit from network effects only to a limited extent because of the (mostly) closed/controlled nature of the platforms.
- 4) The chapter proposes interesting and relevant future research avenues regarding the internationalization of DPs.

We hope our analysis sparks more research into this complex and evolving phenomenon.

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Table 7.1 An overview of the selected case firms

	Firm A	Firm B	Firm C	Firm D	Firm E
Year established	2013	2013	2017	2001	2009
Type of platform and core business areas	online learning platform	sustainability expertise platform	data-driven research service	IT consultancy and business development	Building information modelling for construction industry
Business size (based on EU classification)	SME	SME	SME	Large enterprise	SME
Internationalization stage	Office in Finland; operating currently in 25 different countries	Offices in two countries, operating in one European country	Office in Finland; international growth based on sales activities	Offices in four European countries; international growth through acquisitions	Early planning stage
Logic of value creation and capture	SaaS subscription model; monthly fees (based on the number of users)	Provides sustainability experts or expert teams (via the DP); monthly payments (based on project type)	Provides data analytics expertise & consultation; project-based commissions (pricing dependent on geography and project type)	Provides ICT experts to other organizations; DP's value capture currently being planned	Providing Building Information Modelling (BIM) expertise; commission fees (monthly payments, pricing dependent on services included in the deal)

Source: The Authors.

Table 7.2 A summary of the identified drivers for and barriers to internationalisation

	Cases				
	A	B	C	D	E
Drivers					
Driver 1: A born global mindset	✓	✓	✓		
Driver 2: Specialized niche offerings limit national growth potential	✓	✓	✓	✓	✓
Driver 3: Need for highly specialized knowledge/experts	✓	✓	✓	✓	
Driver 4: Internationalisation with customers	✓	✓	✓	✓	✓
Driver 5: Seeking network effects	✓	✓	✓		✓
Barriers	A	B	C	D	E
Barrier 1: Certain platform types require large degrees of localization	✓	✓	✓		✓
Barrier 2: Selling and purchasing of complex services	✓	✓	✓		
Barrier 3: International expansion might require an offline presence		✓	✓	✓	

Source: The Authors.

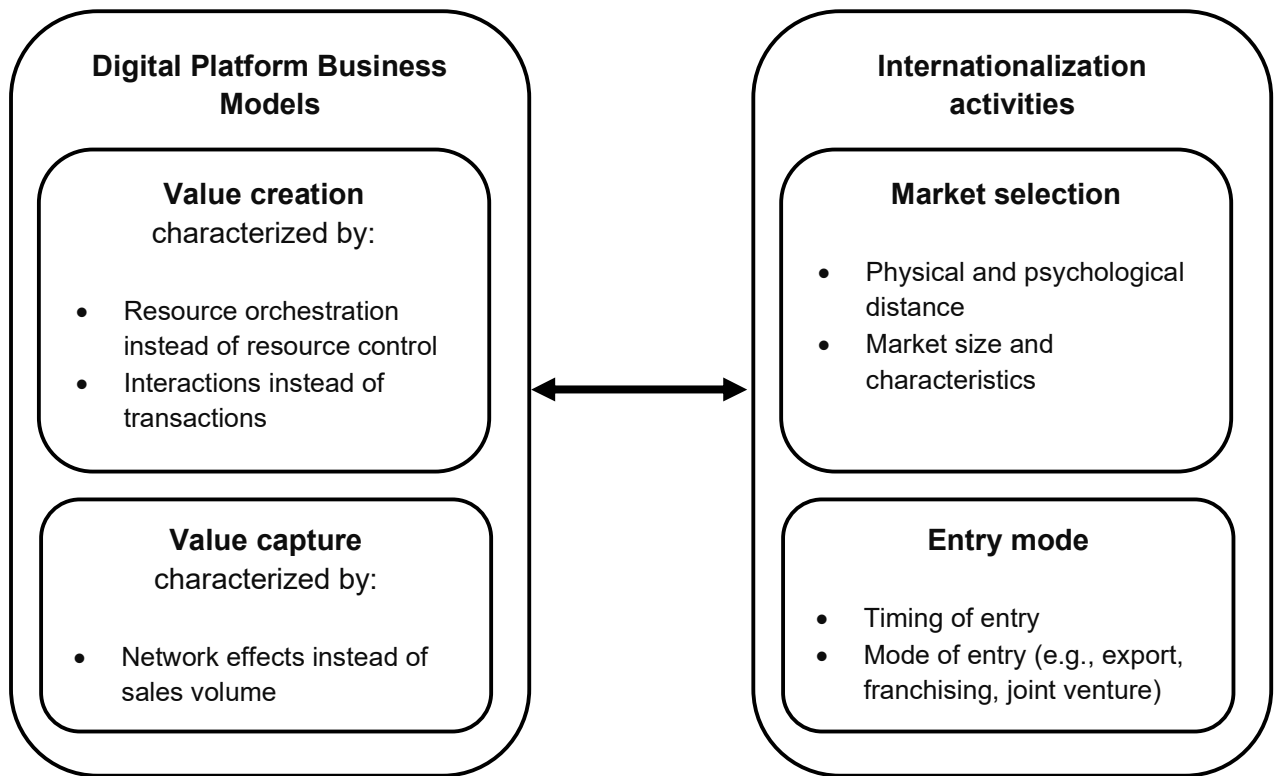


Figure 7.1 Conceptual framework
Source: The Authors.

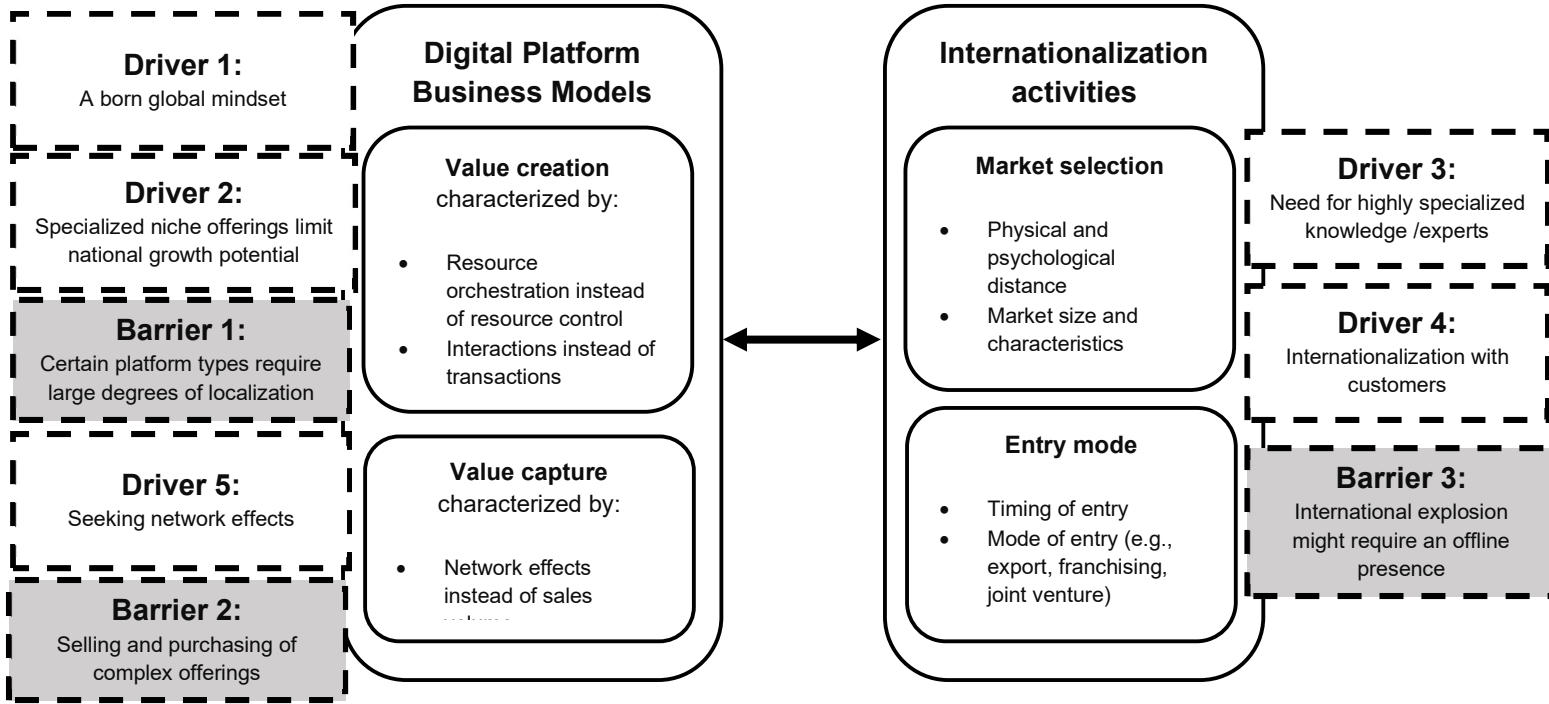


Figure 7.2 Identified the drivers for and barriers to DP internationalisation

Source: The Authors.