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The effects of platform business models on internationalization outcomes and speed: Proposition development and a future research agenda

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Abstract: Despite platform business models (PBMs) being widely discussed by practitioners and assume tremendous opportunities for creating and entering new markets, they have been a rare topic on the agenda of international business research. Hence, knowledge on how PBMs are adapted to internationalization and what effects they have on it is still forthcoming. This paper conceptualizes the effects of PBMs on internationalization outcomes and speed. We propose that they positively affect the breadth of internationalization, foreign sales, the speed of initial market entry, and post-internationalization speed, contingent upon establishing an extensive user network. Also, they negatively affect foreign assets. This study contributes to the emerging research at the frontier of business models and internationalization, and suggests implications for further research.

Key words: platform business models, internationalization, internationalization outcomes, internationalization speed

1. INTRODUCTION

Digitalization, the Internet, and computer-based technologies have enabled firms to create new ways of communicating with customers and connecting them with each other around the globe (Bell & Loane, 2010; Coviello, Kano, & Leisch, 2017). This has allowed the increasing efficiency of business processes, improved performance, and cost reduction, which have powered better decision-making and encouraged innovation (Bouwman et al., 2018). Also, these technologies have triggered the emergence of platform business models (PBMs) as a new way of designing businesses and providing value to customers (Thomas, Autio, & Gann, 2014). PBMs enable firms to create and capture value by channeling communication and

transactions between buyers and sellers (complementors and users) and thereby creating a unique value ecosystem (McIntyre & Srinivasan, 2017; Stallkamp & Schotter, 2018; Li et al., 2019). PBMs spread across a wide range of industries, often disrupting traditional sectors like transportation (Uber), lodging (AirBnB), food delivery (Garbhub, Zomato, UberEats), recruitment (WayUp, Simppler), pet care (PitPat, Pawtocol), luggage storage (NanyBag), etc. They manifest through social media, the peer(-sharing) economy, developer ecosystems, the Internet of Things, crowdsourcing models, etc. (Choudary, 2015). Evans and Gawer (2016) reported about 176 platform-based companies that generated value over \$1 billion. Altogether, PBMs allow companies to achieve effectiveness and unprecedented scalability enabling them to dominate in industries (McIntyre & Srinivasan, 2016; Evans & Schmalensee, 2016).

PBMs are discussed in close connection to the concepts of innovation (Benyayer & Kupp, 2017), new market decisions, having a quick reach to global markets (Poole, 2011; Lozic et al., 2017), and new market opportunities (Thomas et al., 2014; Giessmann & Stanoevska-Slabeva, 2012). These concepts are widely applied in international business (IB) and international entrepreneurship literature. Also, it has been acknowledged that PBMs allow for the circulation of ideas, knowledge, labor, and other assets between geographically distant but connected digital communities (Langley & Leyshon, 2016). Despite PBMs inevitably including components such as a firm's growth and scalability (Poole, 2011), the commercialization of a product/service in new (foreign) markets (Korhonen et al., 2017), and developing new (internationalization) capabilities (Hänninen et al., 2017), research at the frontier of internationalization and PBMs is only emerging (Nambisan, Zahra, & Luo, 2019). Existing studies are very scanty and fragmented; they mainly take the network approach to the internationalization of platform-based firms (Brouthers et al., 2016; Stallkamp & Schotter, 2018; Chen et al., 2019). While this approach is relevant, it does not provide a sufficiently holistic view. Therefore, in light of the global business interface rapidly changing towards being a platform economy, business model research and IB literature lack an understanding of PBMs in a global context and of the effects they have on internationalization (Hänninen et al., 2018; Ojala et al., 2018; Chen et al., 2019).

Given these research deficiencies, the aim of this conceptual paper is to theorize the effects of PBMs on internationalization outcomes and speed. Addressing this question allows providing several important contributions. *First*, we intend to contribute to the IB domain by bringing the business-model perspective into it and developing its emerging stream that connects business models and internationalization (Rask, 2014). We also intend to add to a very emergent stream of research in IB that looks at the internationalization of platform-based firms (Brouthers et al., 2016; Chen et al., 2018; Stallkamp & Schotter, 2018; Ojala et al., 2018; Li et al., 2019). Notably, to ensure better alignment with IB literature, we take a focal-firm perspective (e.g., that of the platform owner). Because platforms or business models as such do not carry agency, we look at the internationalization of platform-based firms rather than at the internationalization of platforms. *Second*, we intend to contribute to business model research by adding a specific type of business model, namely the PBM, and show how it affects internationalization outcomes and speed. While internationalization is one of the decisive aspects of a business model, surprisingly, its dimensions (such as foreign location, for example) have been left outside the research agenda of business model studies (Onetti et al., 2012).

The rest of the paper is structured as follows. The next section compares traditional e-commerce business models with PBMs. The next section addresses the existing literature on

internationalization outcomes and speed, and connects it to PBMs; in this section, we also develop propositions and provide a conceptual model. The last section concludes the paper by outlining directions for future research and practical implications.

2. PBMs

To understand the notion of PBMs, first, we need to specify the meaning of *platform* and *business model*. The term *platform* has been widely used in management literature and has a different meaning depending on the application. In this paper, we follow the perspective of the market-intermediary stream (Rochet & Tirole, 2006), which states that “the platform enables a marketplace (typically, electronic), creating market efficiencies in (at least) two-sided markets. In this stream, the market platform provides the device for connecting supply and demand and establishes and exploits market power” (Thomas et al., 2014: 201). Taking this perspective, McIntyre and Srinivasan (2017: 143) stipulated that “platforms can be conceptualized as interfaces—often embodied in products, services, or technologies—that can serve to mediate transactions between two or more sides, such as networks of buyers and sellers (for example, eBay) or complementors and users (for example, Linux in enterprise server software).” From a more technical perspective, platforms may be described as consisting of a complex, networked, and layered (i.e., hierarchical) system of modular components and interfaces that are located either in the core or on the periphery and the scope and scale of which stems from beyond the immediate platform actors. Recently, data and algorithms (i.e., the processes that make the platforms functional) have also been increasingly included as the key elements of platforms (Gawer, 2014; Kenney & Zysman, 2016; Teece, 2018; de Reuver et al., 2019).

The concept of the business model appeared with the advent of the digital era. Business models for electronic markets initially served as tools for explaining the logic of a firm’s business processes in the Internet (Timmers, 1998; Nielsen et al., 2019). To date, the technological context remains dominant in the discussion on business models (Zott et al., 2011). Although no single dominant definition of the business model is available in extant research, we subscribe to the view of Zott and Amit (2010) who see business models as systems of interdependent activities that transcend the focal firm and span its boundaries. This view aligns with platform thinking in many respects. Zott and Amit (2010) see two categories of parameters that concern activity systems: design elements content, structure, and governance, which describe the architecture of an activity system; and design themes novelty, lock-in, complementarities, and efficiency, which are related to value creation within activity systems. Indeed, the extant research tends to concur that the phenomenon of the business model focuses on value-related processes, helping to explain how value is (co-)created, (co-)delivered, and (co-)captured (Foss & Saebi, 2017). Also, value creation in a business model is both a supply- and demand-side phenomenon (Massa et al., 2017). Hence, value-related processes take place on the supply-and-demand side, thereby creating value ecosystems of network relations that include not only the producers but also the customers (Massa et al., 2017).

Building on the above discussion, a PBM can be regarded as a highly interdependent activity system wherein value flows are dependent on enabling interactions between different sides of the market (Zott & Amit, 2010; Massa et al., 2017, Zhao et al., 2019). Given this interdependency, PBMs are characterized by strong ecosystem externalities (Van Alstyne et al., 2016). In other words, platforms create an ecosystem around them. However, extant literature does not clearly distinguish between platform, ecosystem, or platform-ecosystem business models and uses the terminology interchangeably. The value perspective is the key

to understanding the difference between the terms. In the ecosystem business model discussions, value is realized through a service or product that delivers customer benefits, highlighting the complementarity of offerings and demand. In PBM discussions, value is created through enabling and facilitating transactions and market creation.

Business models based on Internet-, electronic-, and computer-based technologies are not a new phenomenon in literature (Ahokangas, Juntunen, & Myllykoski, 2014). For example, scholars talk about “pure Internet firms” (Kotha et al., 2001), “digital information good providers” (Mahnke & Venzin, 2003), or “E-commerce corporations” (Singh & Kundu, 2002). Consistent with Brouthers et al. (2016), we posit that these firms are far from homogeneous, and PBMs are essentially different from traditional e-commerce business models that use the Internet as a sales channel. Below, we will compare them in terms of their focus, locus, and modus in order to understand the essence of PBMs.

According to Onetti et al. (2012), focus, locus, and modus represent the main elements of a business model design in the context of internationalization. *Focus* refers to the core advantage-generating activities of a company; *locus* describes the location of activities that is connected to space, entry modes, and local embeddedness among other things; and *modus* describes relationships with other players and organizational boundaries. In other words, the authors argue that an internationalizing company should primarily pay attention to the decisions related to the core advantage-generation activities, location, and the network/ecosystem. These elements describe a holistic approach towards business model design in the context of internationalization, allowing the transformation of strategic decisions into effective and efficient value processes.

Traditional e-commerce business models and PBMs coincide, to some degree, with regard to the **locus** element. In both e-commerce business models and PBMs, the Internet is utilized as a digital space for realizing business processes (see Table 1). However, in traditional e-business literature, the Internet is often seen as a delivery channel (Ahokangas et al., 2014) while in platform discussions, the conception of a space for interaction is emphasized more and the Internet is seen to play the role of connectivity. Yet, even if a business is completely digitalized, physical and geographical space remain important factors. The Internet allowed crossing geographical boundaries with ease and accelerated business internationalization. Yet, the Internet does not render geographical differences and borders completely irrelevant. Even for digital companies, such factors as, for example, the liability of outsidership (staying outside a certain digital space or user network) and cultural differences remain obstacles in the process of internationalization (Brouthers et al., 2016; Parente et al., 2018). For instance, Nielsen (2014) indicated that potential users from South America and the Asia-Pacific region are more likely to engage in sharing-economy platforms than those in Europe and North America.

Traditional e-commerce business models and PBMs also differ when it comes to **modus** and **focus**. Firms with e-commerce business models “build products or craft services, push them out, and sell them to customers. Value is produced upstream and consumed downstream, creating linear flow of value, much like water flowing through a pipe” (Choudary, 2015). In turn, PBMs allow for a non-linear co-creation and exchange of value between users and producers; they “provide an open participative, plug-and-play infrastructure for producers and consumers to plug into and interact with each other. They curate participants on the platform and govern the social and economic interactions that ensue” (Choudary, 2015). In other words, with regard to the modus element, e-commerce business models imply a linear

value-chain–like flow of value whereas PBMs enable the emergence of a value network ecosystem.

In traditional e-commerce business models, transferring any part (or the whole) of a traditional value chain (Porter, 1985) into the digital space represents the core advantage-generating activity, be it, for example, marketing, selling, or distribution (Timmers, 1998). In the case of PBMs, all processes related to the data accumulation, storage, and utilization represent the core advantage-generating activities. Yet, Korhonen et al. (2017) emphasized that PBMs are more than digital data-driven matchmakers that make it easier for users and producers to connect; rather, the essence of PBMs is a multi-sided surplus of value created by participants through the network effect. Also, the traditional e-commerce logic that value is created, delivered, and captured has changed in platforms, becoming parallel and simultaneous value co-creation and co-capture between buyers and sellers. Table 1 below summarizes the similarities and differences between PBMs and traditional e-commerce business models.

Table 1. Platform business models versus traditional e-commerce business models

	Traditional business models	e-commerce Platform business models
Locus	The Internet as a (delivery) channel	The platform (accessed via Internet connectivity) as a space for buyer–seller interaction
Focus	A product or service	Data and algorithms
Modus	The linear flow of value; value creation, delivery, capture	Simultaneous value co-creation and co-capture; the ecosystem (cooperative, competitive, and coopetitive relationships)

Drawing on the above discussion about PBMs and how they are different from traditional e-commerce business models, the next section will focus on teasing out the differential impacts of PBMs on internationalization outcomes and speed.

3. THE INFLUENCE OF PBMs ON INTERNATIONALIZATION OUTCOMES AND SPEED: PROPOSITION DEVELOPMENT

The internationalization process results in various effects that may be beneficial or hindering for a firm. In this paper, we address internationalization outcomes rather than internationalization performance because the latter focuses on a narrower spectrum of results that are closely linked to financial performance. Internationalization outcomes, in turn, include a broader array of indicators, which allows for a more holistic view. Below, we will

discuss the influence of PBMs on foreign assets, network relations in foreign markets, the breadth of internationalization, foreign sales, and internationalization speed.

3.1. PBMs and foreign assets

The essence of PBMs is to connect markets' supply and demand sides and in this way create new marketplaces and ecosystems where companies do not own the means of production and physical assets but rather create means of connection and facilitate faster and cheaper transactions between producers and end users (Langley & Leyshon, 2017). Overall, a platform "discourages ownership and promotes access instead" from both supply and demand sides (Kelly, 2016: 123). Therefore, internationalizing platform-based firms do not have to sell any physical product and deal with suppliers and distributors (Brouthers et al., 2016; Chen et al., 2019). This means that, in terms of resource commitments (Johansson & Vahlne, 1977), they have a low amount of resources (assets) committed in foreign markets (e.g., the size of investments in the market) and a generally low degree of commitment to foreign markets.

Proposition 1: Firms with PBMs are likely to have less foreign assets (as a percentage of total assets) than firms with traditional e-commerce business models.

3.2. PBMs and network relations in foreign markets

In IB literature, network relations have been recognized as one of the crucial factors that affect fast internationalization (Oviatt & McDougall, 2005; Jones & Coviello, 2005). From the network perspective, a firm's resources are more a matter of inter-firm interactions than intra-firm characteristics (Hadley & Wilson, 2003). Hence, network relations provide rich pools of resources (tangible and intangible) for foreign expansion and allow for securing foreign sales early in internationalization process (Blunkenburg Holm, 1995; Manolova et al., 2013; Johansson & Vahlne, 2009; Musteen et al., 2010). Also, they are essential in obtaining financial resources, new capabilities, and knowledge of foreign market and institutional structures (Wright & Dana, 2003; Keupp & Gassman, 2009; Iurkov & Benito, 2018). In general, internationalization as a process can be described as networking because it requires the establishment, maintenance, and expansion of relationships with different types of actor at individual and organizational levels (for example, at the levels of customers, suppliers, investors, and state authorities) (Benito & Welch, 1994; Coviello, 2006). The increasing importance of network relations during internationalization can be demonstrated by the major changes in the Uppsala internationalization process model (Johanson & Vahlne, 1977). While the original model shows that companies tend to internationalize gradually, starting with countries of close psychic proximity and then progressing towards more distant markets, the revisited Uppsala model (Johansson & Vahlne, 2009) replaces the concepts of psychic distance and the liability of foreignness with network position and the liability of outsidership. Hence, the barriers to internationalization are no longer associated with country borders but relate to an insider or outsider position within foreign business networks.

Studies show that PBMs trigger the network effect between the demand and supply side (Täuscher & Laudien, 2018; Casadesus-Masanell & Halaburda, 2014; Suarez, 2005). They presume and naturally bring together various compatible stakeholders (Priem, Wentzel & Koch 2018), and there is a mutual dependence between parties within a platform (McIntyre & Srinivasan, 2017). Networks organize around platforms, and it is exactly the increased number of participants that enhances the value of platforms through direct and indirect network effects (Ruggieri et al., 2018; McIntyre & Srinivasan, 2017). For example, Zalando, a digital platform and an online retailer for fashion and lifestyle products, has been organized

as a network community that brings together designers, brand makers, and consumers; this network has allowed Zalando to establish its business in 17 countries and create innovations via third parties (Shaughnessy, 2016). Thus, a key characteristic in this community is the complementarity of offerings (c.f. Gawer, 2014). Interestingly, Boudreau and Jeppesen (2015) questioned the network effect in one type of two-sided platform wherein crowd complementors are unpaid. They showed that the rapid and aggressive recruitment of complementors under conditions of no sales incentives (e.g., when complementors work outside price systems) is problematic. Hence, when complementors receive no payments, platforms do not stimulate network effects from the supply side. A network of users, in turn, can create a powerful advocacy effect for a platform; this means that a platform enrolls new customers through the recommendations of existing users (Shaughnessy, 2016).

Nevertheless, a dominating amount of research demonstrates that PBMs create ecosystem networks, from which they obtain knowledge about foreign markets and through which they can reach customers globally and more efficiently (Poel et al., 2007; Fu et al., 2017; Thomas et al., 2014). Examples of the Facebook Home platform-based application launched by Facebook Inc., the QNX operating system developed by Blackberry, and the navigation application Maps created by Apple Inc. show that PBMs lead to the emergence of complex ecosystems that involve diverse international players and spread globally (Hoelck & Ballon, 2015). This argumentation allows for suggesting our next proposition:

Proposition 2: Firms with PBMs are likely to have more extensive networks of relations in foreign markets than firms with traditional e-commerce business models.

Networks have been recognized as one of the key components in the internationalization of platform-based firms. For instance, Brouthers et al. (2016) argued that for this kind of firm, the liability of foreignness is less relevant because they do not have any physical product to sell and do not need foreign distributors. Rather, internationalization liabilities shift towards the liability of outsidership because platform-based firms need to develop an extensive network of users in foreign markets in order to enjoy positive network effects. Similarly, Stallkamp and Schotter (2018) stated that the geographical scope, foreign market selection, and the choice of entry mode of platform-based firms are highly dependent upon within-country and cross-country network externalities. This happens because some user networks are difficult to transfer across borders, and platform-based firms only generate profit when an extensive user network exists. Likewise, Chen et al. (2019) showed that the internationalization of platform-based firms is critically dependent on users' collective interactions, which cannot be fully controlled; hence, these firms have to create a critical mass of users (or a "gravitation field") and maintain and channel their interaction in order to achieve international network effects (p. 175). Given this importance of user networks and network externalities for PBMs, we suggest that further internationalization outcomes—such as breadth and foreign sales, and the speed of internationalization—will be moderated by creating a solid network of users abroad.

3.3. PBMs and the breadth of internationalization

The international presence of a firm depends on the number of foreign markets it operates in. Additionally, Kutschker and Baurle (1997: 105) underlined that the geographic-cultural distance of these markets is also decisive for the degree of internationalization, meaning that "a German corporation operating in Austria, Switzerland, Belgium and the Netherlands is less international than a German corporation which has activities in Japan and Brazil." Respectively, in this article we apply the breadth of internationalization as a unifying

concept, including the number of new markets, their geographical diversity, and physical/cultural distance to markets firms operate (Casillas & Acedo, 2017; Asmussen et al., 2009; Jones & Coviello, 2005).

According to Lund and Nielsen (2018), scalability is one of the distinctive features of PBMs, which means that a business is capable of handling the growing amount of work, accommodating the growth in size, and increasing the total output when more resources are added. Hence, scalability is tightly related to the concepts of growth and business potential. In a similar vein, Korhonen et al. (2017) indicated that PBMs allow for the more sustainable growth of businesses because they catalyze the emergence of ecosystems around themselves; these ecosystems are borderless and have greater efficiency because they attract more customers and, consequently, strengthen the platform. For instance, Täuscher and Laudien (2018) provided the example of Sellfy, a self-publishing platform that enables the creators of digital content (authors, musicians, and designers who produce e-books, music, video, etc.) to interact directly with buyers and commercialize their content. The authors indicate that the geographical boundaries of these digital goods are very low (or almost non-existent), which allows Sellfy to operate as a global marketplace and create communities around products. Also, digital multi-sided platforms from the retail sector—such as the Alibaba Group, Amazon.com, eBay, and the Rakuten Group—represent the largest digital marketplaces with a truly global presence; by facilitating business-to-business, business-to-consumer, and consumer-to-consumer transactions through digital service offerings and social media elements, they are able to create and facilitate platform ecosystems that cover numerous geographical locations (Hänninen et al., 2017). These discussions and examples help us to develop our next proposition:

Proposition 3: Firms with PBMs are likely to have a higher breadth of internationalization than firms with traditional e-commerce business models.

3.4. PBMs and foreign sales

Foreign sales are activities related to selling abroad or the number of goods/services sold abroad in a given time period in relation to the total percentage of sales. Among other factors, foreign sales are positively influenced by a firm's technological capability and international equity and non-equity alliances (Lieblein & Reuer, 2004). In a similar vein, Yu et al. (2010) applied the network perspective to show the accelerating influence of technology and marketing alliances on new venture sales into foreign markets. They demonstrated that these alliances allow for different types of knowledge and thus promote initial foreign market sales. In addition, Foss and Svensson (2002) showed a positive two-way reinforcing relationship between R&D activities and foreign sales.

Studies on PBMs indicate that they only become relevant and scalable when they generate positive network externalities through creating ecosystems of users. Hence, for internationalizing firms adopting PBMs it is crucial to get involved in network alliances not with suppliers, distributors, or technology providers but rather with end users (Brouthers et al., 2016). It is exactly through this pool of relations that platform-based firms attain the critical mass of users and increase their foreign sales (Chen et al., 2018; McIntyre & Srinivasan, 2018). Unlike this, firms with traditional business models are not exposed to this big network of customers (Choudary, 2015). This discussion allows for deriving our next proposition:

Proposition 4: Firms with PBMs are likely to have higher foreign sales (as a percentage of total sales) than firms with traditional e-commerce business models.

3.5. PBMs and internationalization speed

The temporal dimensions of internationalization have been a relevant factor in IB literature for a long time (Buckley & Casson, 1981; Melin, 1992; Casillas & Moreno-Menendez, 2014) but have become one of the major aspects of interest, especially with the rise of international entrepreneurship research (Oviatt & McDougall, 1994). While the more traditional stage model of internationalization suggests that firms expand abroad gradually through sequence of stages in a path-dependent way (Johanson & Vahlne, 1997), international entrepreneurship literature focuses on so-called international new ventures and born global firms, ones that enter distant and diverse foreign markets right after inception (Oviatt & McDougall, 1994; Madsen & Servais, 1997). This type of research understands internationalization speed as the speed of entry and emphasizes the time lapse between a firm's foundation and the initial entry to a new foreign market. However, Autio, Sapienza, and Almeida (2000: 909) underlined the importance of post-internationalization speed and indicated that "research has not sufficiently distinguished between two closely related but distinct issues: first, the time lag between the founding of a firm and its initiation of international operations ... and, second, the speed of a firm's subsequent international growth." Hence, it is important to distinguish between the time required to start the process of internationalization and the time it takes a firm to reach a certain degree of internationalization. According to Casillas and Acedo (2017), the latter contains three types of speed: 1) the speed of the growth in a firm's international commercial intensity, which can be defined as "the growth of the proportion of company sales derived from foreign countries over a specific period of time" (p. 19); 2) the speed of a firm's increase in the commitment of resources abroad related to "increases in the proportion of company assets held abroad or of its workers employed in foreign enterprises" (p. 20); and 3) the speed of the dispersion of its international markets, defined as "the increase, over time, in the number, variety and distance of the countries where a company is active" (p. 20). Consistent with other studies (Prashantham & Young, 2011; Hilmersson & Johanson, 2015), in this article, we consider both the initial speed of entry and the post-internationalization speed as important aspects of internationalization dynamics.

Unlike traditional linear business models, PBMs are tightly coupled with the phenomenon of digitalization; in addition to traditional channels, they inevitably imply an extensive use of the Internet and communication technologies to virtualize their operations (Fu et al., 2017; Benyayer & Kupp, 2017). Exactly these technologies have been discussed as the main triggers of internationalization right after inception, where a firm enters several foreign markets simultaneously and leapfrogs the stages of internationalization (Oviatt & McDougall, 1994; Madsen & Servais, 1997). Also, digitalization and the use of various social media infrastructures for faster information sharing, marketing, and value co-creation have been recognized as forming one of the positive factors affecting internationalization speed (Bell & Loane, 2010; Maltby, 2012; Hagsten & Kotnik, 2017; Pogrebnyakov, 2017). Hence, it has been argued that PBMs that are based on new communication technologies are potentially more scalable to dominate in global industries (Kenney & Zysman, 2016) because they connect suppliers and customers/users "at a click of a button" (Langley & Leyshon, 2016). In a similar vein, Parente et al. (2018) posited that platform-based firms expand internationally at a greater speed because of their asset-light business model; hence, they often resemble born global firms due to their early internationalization. Poole (2011) gave the example of FreebirdConnect.com, a platform that helps managers tracking operational metrics relating to sales, speed-of-service, labor, and food utilization and thus gives them more time to focus on

their key assignments; this platform business has inherent economies of scale and low operating costs and, therefore, was very rapidly able to reach customers globally. Because PBMs imply scalability (Lund & Nielsen, 2018), they make it easier to start a business that has decreased time to initial markets, further global reach, and rapid scaling (Poole, 2011; Fu et al., 2017; Ondrus et al., 2015). This discussion allows us to derive our next propositions:

Proposition 5a: Firms with PBMs are likely to start their internationalization early after inception compared with firms with traditional e-commerce business models.

Proposition 5b: Firms with PBMs are likely to have higher post-internationalization speed compared with firms with traditional e-commerce business models.

Based on the discussion above, we propose a conceptual model that shows the influence of PBMs on internationalization speed and outcomes (see Figure 1). The model demonstrates that the positive effect of a PBM on internationalization outcomes, such as the breadth of internationalization, foreign sales, and internationalization speed, is contingent upon the availability of user-network relations (it is indirect and happens via user-network relations). In turn, the negative effect on foreign assets is direct because “asset lightness” is the essence of platform-based businesses. The implications of this model for future research will be discussed in the next section.

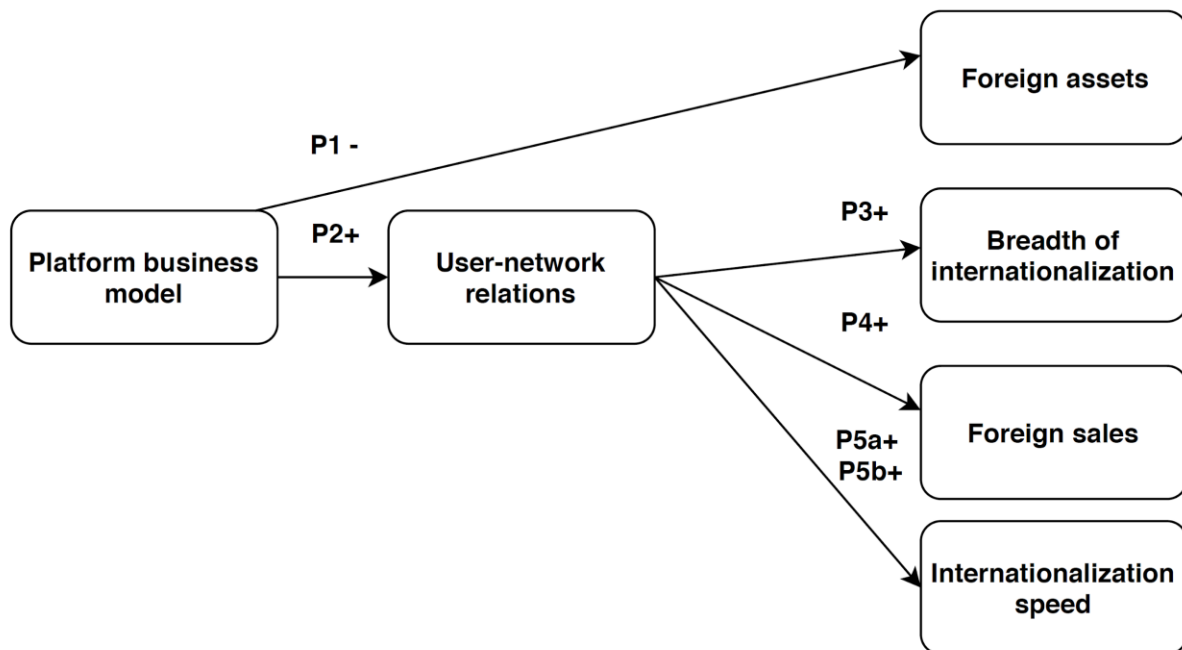


Figure 1. The conceptual model

4. CONCLUSIONS, CONTRIBUTIONS, AND DIRECTIONS FOR FUTURE RESEARCH

This study treats PBMs as an independent variable and specifically looks at how they affect internationalization speed and outcomes. Hence, it pulls together business model research and internationalization studies. This interface offers several valuable contributions. *First*, we contribute to IB research by responding to the calls for creating “business modelling

approaches for internationally-oriented entrepreneurial processes” (Onetti et al., 2012: 363). Our discussion and the derived propositions show that firms adhering to PBMs can reach global presence faster, by-pass the stages of internationalization, and exploit the contingencies emerging upon the creation a solid user-network in a more innovative way and a strong insider position within it. This adds to existing discussions in the international entrepreneurship domain, which has not yet included PBMs in its research agenda (Ojala, Evers, & Rialp, 2018). In addition, our paper responds to the call to obtain more knowledge about the specific characteristics of business models that lead to internationalization (Hennart, 2014). We show that a specific type of business model, namely the PBM, possesses certain characteristics that allow businesses to get exposed to internationalization in a more effective way.

In addition, we add to the emerging discussion on the internationalization of platform-based businesses or so-called ibusiness firms (Brouthers et al., 2016; Chen et al., 2018) or digital-based international new ventures (Ojala et al., 2018). These studies mainly emphasized the distinct network strategies of these firms (Brouthers et al., 2016; Parente et al., 2018), as well as within-country and cross-country network externalities (Stallkamp & Schotter, 2018). While we acknowledge that, for platform-based firms, getting embedded in foreign market user networks and building a critical mass of users is vitally important, other aspects of internationalization also have to be taken into consideration. Therefore, our conceptual model provides a more holistic view on the internationalization of these kinds of firms because it also looks at the speed of foreign expansion—by-passing the stages of internationalization—foreign sales and assets, and the breadth of internationalization.

Extant literature on internationalization typically adopts a firm perspective and focuses on a *firm* as a unit of analysis for internationalization. Business model research in general represents a more holistic view and sees the *business model* as a boundary-spanning unit of analysis. Platform literature, in turn, adheres to a view that is closer to business-model thinking by focusing on the interaction between buyers and sellers wherein the complementarity between stakeholders is important. In order to facilitate our aim of bringing the business model perspective into internationalization research, which is a novel perspective in the IB research context, our argumentations started with the choice to focus on the platform owner’s business model as a unit of analysis. Even though the business model as such does not have any agency for internationalization, the business model as an approach explains internationalization from an original perspective (Ahokangas et al., 2014). Specifically, internationalization as a phenomenon can be seen at the level of the business model rather than at the level of the firm. From this perspective, internationalization can be explained as a process of business model change (see, e.g., Rissanen, Ermolaeva, Torkkeli, Ali, & Saarenketo, 2020), meaning that a firm has to change its business model in order to internationalize. In addition, one firm may have multiple (variants) of business models in parallel for different markets or segments (Velu & Stiles, 2013). Thus, the firm can mitigate the risks related to differences between markets by running different business models for different markets simultaneously. Our point is that the business model adds a new level of analysis to internationalization research, one that is between the firm and the market.

Second, we contribute to business model studies. By placing business models into an international context, we explain the growth and performance via business models with variables that are rarely seen in business model literature. Growth in business model research is often related to the concepts of scalability (Stampfl, 2013) and replicability (Martins et al., 2015) as features of business models. The antecedents and outcomes of growth in business

model research—and also internationalization—are often related to the concepts of the scalability and replicability of business models. Concepts such as the speed and breadth of internationalization add a new dimension to discussions on growth within business model research. Treating the business model as an independent variable allows one to explain it in a measurable way. In extant literature, business models have seldom been discussed or operationalized through measurable dimensions; rather, they have been discussed in terms of the elements they consist of. Seeing PBMs as activity systems (Zott & Amit, 2010) and selecting the dimensions of focus, modus, and locus (Onetti et al., 2012) as the business model dimensions allows for reaching a better understanding of the logic of internationalization for platforms.

The research agenda outlined in the paper follows the logic of IB, which has existed much longer than business model research as a research area. We see that the business model as an approach can rejuvenate IB research considerably, especially in novel contexts such as platforms. In our view, platform firms and their internationalization have characteristics and dimensions that are sometimes impossible to capture with the traditional approaches and concepts used in IB research. Bringing the concept of business models into the internationalization context, and specifically discussing PBMs as the antecedents of firms' global expansion, opens several potential avenues for IB and business model research. While this paper deals with the effects of PBMs on internationalization outcomes, we still know little about the “what and how” of PBMs in the internationalization context. Future research can deal with the “what?” question by addressing the following issues: What are the differences between the internationalization of PBMs and other traditional (online, web, e-, i-, or Internet) business models? What is the difference between international and domestic PBMs? Why do some platform owners remain domestic and others expand abroad? Using the terms of Langley and Leyshon (2016: 2), what “platform competences” do firms need to develop in order to scale up their platform-based businesses globally? What are the specific components of PBMs that trigger, enable, and facilitate their internationalization? The “how?” question can be answered by dealing with topics like: How do internal and external contingency factors trigger/enable/facilitate changes in PBMs in internationalization? More specifically, how do external institutional factors, both in home and host countries, influence the internationalization of platform-based firms? How do PBMs create value by developing the large, scalable networks and ecosystems of various stakeholders? In this regard, a shift from the static perspective of business models towards the more process-based view of *business modelling* would be beneficial.

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