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How Digitalization Changes the Internationalization of Entrepreneurial Firms: Theoretical Considerations and Empirical Evidence

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Abstract. *The internationalization of firms has mainly been analyzed and explained by considering observations in a pre-digital business environment. Thus, the applicability of the internationalization theories to digital ways of conducting business needs to be challenged. Recent research on the internationalization of digital firms attempts to adapt existing international business literature to the digital market. However, these studies consider internet-based companies predominantly as a homogeneous group. It is a popular opinion that digital internationalization is faster, cheaper, and easier for digital companies. The purpose of this article is to develop a comprehensive understanding of how internet-based companies internationalize in the digital market and why their internationalization processes differ from one another. Based on an overview of the specificities of the digital marketplace and their impacts on the applicability of the traditional international business theories, we develop a differentiated view of digital internationalization. Subsequently, the theoretical results are compared with primary data derived from six semi-structured interviews with representatives of digital companies. So far, the business internationalization theory has focused on variables such as efficiencies of the value chain, internal capabilities, and resource endowments. Our results show that even if these theories still have high impacts on the internationalization strategies of internet-based companies, in the highly dynamic digital markets, further variables need to be considered. In addition to the impacts of value creation and delivery infrastructure (e.g., firm-specific capabilities and resources), the specific way of creating value and the individual customer interface used by a digital business play key roles in digital internationalization.*

Keywords: *digitalization; internationalization strategy; business models.*

Introduction

Innovations in modern information and communication technologies are revolutionizing the business environment. The internet provides challenges and opportunities to new and existing companies, which conduct business in innovative ways with a growing share of international activities.

The new marketplace on the internet—the *digital market*—differs from the traditional market environment. The firms that build up their businesses in the digital market are *internet-based companies* (IBCs). Their value creation and delivery are based on the internet, which means that if the servers would stop working, these companies would be unable to create and deliver the value that they offer to their customers (Brouthers, Geisser, & Rothlauf, 2015; Hazarbassanova, 2016).

Two research streams are distinguished: the *traditional international business (IB) theories* and the more recent *international entrepreneurship (IE) approaches.* The IB theories were developed on the basis of observations conducted over 40 years ago in predigital markets. At that time, IB was mainly a privilege of large *multinational enterprises* (MNEs). Notably, studies on MNEs confirmed strong resource endowments and success in the domestic market as prerequisites for international success (Johanson & Vahlne, 1977). On the other hand, the IE approaches capture the fact that with the introduction of the internet, competing with MNEs, small- and medium-sized businesses also started to engage in international activities—frequently immediately after their foundation. The IE approaches focus on internal factors, capabilities, and networks of a company as reasons for such behavior (Andersson, 2011; Hagen & Zucchella, 2014).

Digitalization is disruptive. This means that the competitive conditions for IBCs profoundly differ from those of the predigital era. This leads to the first research question: *(i) How does the digital market differ from the predigital market?*

The changed conditions impact the characteristics of IBCs compared with those of their predigital counterparts. Existing IB literature is based on the observations involving an entirely different type of companies (usually pre-digital MNEs) operating under entirely different market conditions. This leads to the second research question: *(ii) Is pre-digital IB literature also applicable to IBCs, and which adaptation may be necessary?*

Studies investigating the impact of digitalization on the internationalization process consider digital companies as forming a homogeneous group (Brouthers et al., 2015; Hennart, 2014). This approach is questionable for simple reasons. Digitalization has an impact on almost any sector of the global economy and profoundly changes business practices. Therefore, the third research question is formulated: *(iii) How should a theoretical framework for a differentiated analysis of IBCs be set up?*

The final research question then seeks to clarify this point: *(iv) To what extent do differences among IBCs' ways of conducting business have an impact on their*

internationalization processes? The four research questions are answered through both theoretical argumentation and empirical research.

Theoretical background

In this section, the research questions are considered taking a theoretical perspective. Subsequently, the relevance of theoretical explanations is challenged in the empirical part.

Digitalization and its impact on international business theories

Digitalization fundamentally changes business practices, challenges the competitive advantages of well-established businesses, and provides opportunities to new businesses (Cao, Navare, & Jin, 2018; Weill & Woerner, 2015). Smart, connected products are completely changing the value chain and therefore companies need to rethink what they are doing (Porter & Heppelmann, 2015). The digital value delivered to consumers differs from the value of physical goods, in which most of the IB literature is rooted (Afuah, 2003; Autio & Zander, 2016). The most relevant changes are as follows:
(i) Changing determinants of competitive advantages. Value chain efficiencies matter less in achieving competitive advantages for digital goods than for physical goods, where this factor plays a key role (Mahnke & Venzin, 2003). Digital goods can be easily copied and adapted to consumer needs without high additional costs. Other factors, such as product uniqueness and brand reputation, are much stronger determinants of competitive advantages in digital markets.
(ii) Reduced transaction costs. Processes can be much more standardized, and internal and external communication and coordination are facilitated. Examples are lower costs of customer relationship management because of automated software, facilitated coordination of purchase and delivery logistics because of virtual delivery channels and automated ordering systems, and facilitated governance and control mechanisms through digital online accounting (Bunduchi, 2005).
(iii) Reduced asset and location specificity. Digital businesses can become important players in the market even if they cannot relate back to large capital supplies and are not physically present in a sales location (Autio & Zander, 2016).
(iv) Outsourcing and offshoring. IBCs can compensate for their resource limitations by outsourcing and offshoring parts of their value chain and can remain profitable because they are allowed to scale up rapidly, while not being bound to capacities of physical factories (Lewin & Volberda, 2011).

Considering the conditions in the digital market, it is questionable to what extent traditional and IE theories explain the behavior of digital companies and if such theories provide a sound basis from which to derive recommendations.

The characteristics of the digital market promote the internationalization of smaller and younger companies despite their limited budget for internationalizing early and on a wide scale. Notably, traditional theories (e.g., internalization theory in combination with scale efficiencies on transaction costs as explanation for the

existence of MNEs, the eclectic paradigm adding ownership and location-specific advantages, or the internationalization process model also known as Uppsala stages approach giving a focus to an incremental acquisition of knowledge on foreign markets and suggesting a stage wise market entry), were developed on the basis of observations in large MNEs, often more than 40 years ago. The observations revealed a trend toward the weakening applicability of traditional theories, such as the internalization theory, and an enforcement of the dynamics suggested by IE theories (e.g., knowledge-based view, resource-based view, and the network theory). Nevertheless, the traditional theories help provide an understanding of the internationalization of IBCs.

The business model (BM)

Recent approaches claim the applicability of the IB theories by relating it to a homogeneous group of IBCs. Notably, this assumption cannot be sustained, considering the ubiquitous digitalization of the global economy (Brouthers et al., 2015). A conceptual tool to differentiate IBCs' internationalization strategies from one another is needed. The business model (BM) concept describes how companies conduct business and provides a structure for a heterogeneous perspective on IBCs. However, the IB literature still does not agree on a single, clear definition of the BM's function and components. We follow Osterwalder, Pigneur, and Tucci's (2005, p.10) definition: *"A business model is a description of the value that a company offers to one or several segments of customers and the architecture of the firm and its network of partners for creating, marketing and delivering this value to generate profitable and sustainable revenue streams."*

Schallmo (2015) and also Foss and Saebi (2017) discuss excisting approaches to develop BMs.

As a conceptual tool, the BM allows more structured decision making in the digital business environment. It can be considered an additional theoretical layer between the aggregated information of strategy (which is too general) and the detailed information of the business processes, which is too complex to categorize IBCs in a purposeful manner.

Scholars identify up to 24 different items, belonging to up to eight general components of a BM. The approaches differ in purpose—to provide a model for either the digital market or one with general applicability (Richardson, 2008).

The Business Model Components		
Value Proposition	**Value Creation and Delivery Infrastructure**	**Value Capture / Financial Aspects**
Product Value Proposition	Capabilities and Resources	Revenue Model
Customer Infrastructure	Supplier and Distributors	Economic Model
Value Creation Logic	Partner Network and Alliances	

Figure 1. The business model components

In this study, eight items organized under three essential categories are considered: the value proposition, the value creation and delivery infrastructure, and the value capture / financial aspects (see Figure 1).

(i) The value proposition describes the value of the product or service offered. It explores which customer need is satisfied and why customers are willing to spend money on the product or service. Therefore, it clarifies the overall approach to the competitive advantage (Richardson, 2008). To distinguish IBCs in a differentiated analysis, the value propositions of digital companies may be segmented according to content, commerce, context, and connection. The digital customer interface component of the BM can be differentiated by segmenting the customers into digital tribes. Following this approach, companies are differentiated by considering their target customer groups, which are not segmented by demographic data but by the interests, size, loyalty, and wealth of each segment (KPMG, 2009). The value creation logic is competing for a way to categorize value propositions and is determined as the result of the product value and the customer interface. The three general types of companies according to the value creation logic are long-linked, mediating, and value shop (Stabell & Fjeldstad, 1998). The value creation logic is a powerful tool to distinguish companies in the digital market environment, as it categorizes IBCs into only three categories. It appears to be useful for developing a structured understanding of how IBCs' internationalization strategies can be distinguished from one another.

(ii) The value creation and delivery infrastructure explain the architecture of processes, which allow a business to generate better value more efficiently than its competitors do. In addition to the internal sources of competitive advantage, resources, and capabilities, the infrastructure contains the structure of a company's external links, including suppliers, distributors, and collaborators (Richardson, 2008). This component does not have to be adapted to the digital market. The key capabilities and resources are the main factors for describing the value creation

architecture, and the external links may increase in importance, as outsourcing and offshoring are more frequently used.

(iii) The value capture component of the BM is essential because a sound value proposition and a highly efficient value creation and delivery infrastructure are not sufficient for maintaining a profitable business in a sustainable way. Consumers who often expect non-specific offerings to be free pose challenges to companies in the digital markets. Magazines, music, and social networks are expected to be financed in ways other than by direct payment. The BM's value capture component clarifies the revenue model and the financial structure of the business in the economic model (Osterwalder et al., 2005).

Impact of BM components on internet-based companies' internationalization

On the theoretical basis provided, it is possible to develop a comprehensive understanding of how digital companies are internationalizing and why their internationalization processes differ. Digitalization impacts on the business model as technologies enable new ways of value creation and customer relationships. Exemplary is the customer segmentation based on interest-based factors, which is enabled by the analysis of big data derived from social networks.

Hennart (2014) questions the assumptions of traditional IB theories, suggesting that the internationalization process of new and rapidly internationalizing new ventures (INVs) is due to their value propositions rather than to their internal resources, knowledge capabilities, individual experiences of the entrepreneurs, or external networks. His idea is that INVs do not have to adapt their methods of customer acquisition as they often target internationally similar niche markets. The decreased need for adaptation eliminates the process of incremental knowledge acquisition, which is the basis for the assumptions of the *internationalization process model* suggested by Johanson and Vahlne (1977, 1990). For this reason, INVs may even internationalize without planning it proactively. Hennart (2014) calls these companies *accidental internationalists.*

The second approach is Autio and Zander's (2016) *lean internationalization,* which shows how young digital companies follow the *"doing rather than planning"* approach. Digital companies often do not conduct market research before starting their international expansion. The costs and the risk of failure have decreased due to digitalization so that the advantage of trying to enter the market is considered superior compared with a long, costly, and incremental market entry (Autio & Zander, 2016).

Impacts of individual BM components

Based on the identified factors that differentiate IBCs from one another, we now investigate the impact of each BM component on the internationalization strategies. The purpose is to identify the particular effects of the different components on the applied internationalization strategies. Through this method, we can draw the connection between the BM components and particular internationalization theories to develop an understanding of, and a structure for the large number of variables in the IB literature.

a) Impact of the value proposition

Out of the three dimensions of the value proposition introduced in the previous section, the value creation logic (Stabell & Fjeldstad, 1998) is considered the most appropriate tool for developing a structured understanding. It allows differentiating IBCs into three categories yet still includes the product value proposition and the customer interface in the segmentation. A differentiation based on the product value or the customer interface results in too many subcategories, which hinder the development of a structured understanding compared with the individual theories. Hazarbassanova (2016) conducted a case study on the impact of the value creation logic on the internationalization of firms, in which he found evidence for a relation between the way a company creates value and its internationalization process. In the following, the particular impacts of the three main value creation logics will be investigated.

Impact of the value chain logic
Companies belonging to the value chain logic category strive for an optimization of their production processes and a decrease in costs through scale economies. This strategy usually results in a high level of standardization of their processes (Stabell & Fjeldstad, 1998). A predigital example of a company under the value chain logic category is the traditional manufacturing firm, which transfers inputs to outputs. Its competitive advantage is due to optimized and standardized value chains and scale efficiencies. The customers are not involved in the production process, and the communication with them is rather indirect. The internationalization is incremental and tends to internalize operations if transaction costs (Coase, 1937) can be saved. Because of the high degree of similarity in the matter of value creation between traditional manufacturing firms and IBCs that create value through standardized value chains, Hazarbassanova (2016) attributes a similar internationalization behavior to the latter type. These firms, therefore, will tend to follow internationalization processes often well described by traditional IB theories.

Impact of the mediating network logic
Companies with a mediating network logic often co-create value with their users. In addition to the value offered through the infrastructure of the internet platform, the network of interconnected users itself represents a value (Stabell & Fjeldstad, 1998). A dynamic that strongly affects the internationalization of mediating network firms is the *liability of outsidership* (Brouthers et al., 2015). It is necessary for a network to reach a critical number of users so that the network's growth starts to be self-

sustaining. For networks without any international context, it can be hard to internationalize because the part of the competitive advantage derived from the number of customers is not transferable and will start from zero for every market entry. The pool of users may then be perceived as a resource, and the resource-based view may be applied—a company will internationalize as much as it is able to transfer its competitive advantage to the new markets.

Impact of the value shop logic
Companies belonging to the value shop logic category generate value through the development of customized solutions to individual problems of directly contacted customers. Examples of this type of value creation logic are consulting firms (Stabell & Fjeldstad, 1998). It is hard to standardize the underlying processes because they can seldom be formalized and codified. The competitive advantage of value shop firms is generated through either specific knowledge-intensive processes or an excellent reputation (Mahnke & Venzin, 2003). Offerings need to be adapted to local markets and usually cannot be outsourced because the competitive advantage is based on tacit, internal knowledge that is hardly transferable to external third parties and contains a high-leakage risk (Hazarbassanova, 2016).

Impact of the customer interface
As mentioned, the customer interface is a component of a company's value proposition and indicates the target segment. In his theory of *accidental internationalists*, Hennart (2014) states that rapid internationalization patterns of INVs may be due to the targeting of niche markets. Therefore, the customer interface is expected to have an impact on the internationalization patterns of IBCs.

b) Impact of value creation and delivery infrastructure

The value creation and delivery infrastructure is the architecture of processes, which together create a competitive advantage. The value proposition and the process infrastructure are usually strongly related. However, companies do not always exist as theoretical models suggest, and the impacts of the two components should be analyzed separately. The value creation and delivery infrastructure is subject to many of the traditional IB theories and IE approaches. The impacts of a company's resources and capabilities are described by the *resource-based and the knowledge-based view* (Knight & Cavusgil, 2004), as well as by the *dynamic capabilities approach* (Teece, 2007). The *network-based view* (Afuah, 2003) relates to the partner and supplier item.

c) Impact of value capture

Financial aspects and value capture only have indirect impacts on the internationalization of IBCs. The endowment of capital resources is certainly a key factor (e.g., for the decision for or against external funding). However, the endowment of financial resources is already accounted for in the capabilities and resources item of the process architecture.

It becomes obvious that the individual BM components critically influence a firm. The new approaches pointing out the importance of the value proposition contribute to the understanding of digital internationalization. The existing theories mainly focus on the items of the process architecture, internal capabilities, and resources, as well as external network links.

The theories combined above are now organized in the structure of the BM concept. Through this structure, the information is brought to a comprehensible level, which can be applied to further research to create or adapt BMs based on internationalization purposes.

Empirical evidence

Using a qualitative research approach, we attempt to complement the contemporary theoretical knowledge and to test whether the argumentation is applicable to actual evidence from IBCs. Primary data was collected from six semi-structured interviews with representatives of IBCs. The sample consisted of two firms per value creation logic category because this factor was identified as representative of the differentiation of IBCs—even if not the single determining factor. The basic requirement for the sample was an internet-based value creation. The individual interviewees had to be involved in the historical and current strategy development of their company. The semi-structured character of the interviews allowed to individually focus on specific arguments that the respective interviewee considered as essential for its companies' internationalization process. The interviews were recorded and transcribed to allow a careful analysis. We performed a qualitative content analysis by applying the Mayring method (Mayring, 2000). The answers of the IBCs were structured in categories, which first determined the BM, and then provided the insights to analyze the corresponding internationalization process (motivation, market selection, market entry, and speed).

The companies

Company A is a legal service provider that uses standardized computer algorithms to support its clients in the resolution of low-complexity legal disputes. The company started to internationalize after succeeding in its national market and is now able to scale up its activities in other markets due to the high standardization of its processes. Due to the high standardization of its value creation process, its value creation logic is best described by the value chain logic.

Its internationalization is facilitated by the fact that the value creation process remains to be the same across national borders. The company selects its markets based on size and economical potential. Notably, psychic distance is named as a decisive factor for market selection. It is interesting that the internationalization only started after the company's success in its domestic home market.

Company B is a software-as-a-service provider that offers a solution to exchange digital signatures that are legally recognized. Its software is highly standardized and

only has to be translated to create accessibility to the international market environment. It can therefore also be assigned to the value chain logic category.
The internationalization of Company B is similar to that of Company A. The main reason for the internationalization is the search for foreign sales opportunities, and the entry to different international markets is considered easy because the product does not have to be adapted.

Company C is a mediating network firm that offers opportunities for businesses to outsource low-complexity tasks to freelance workers. It provides the platform to connect these two types of customers. The company is internationally active in order to connect the freelance workforce surplus in one country to the freelance workforce scarcity in another country. However, it does not intend to keep on entering further markets in the near future because of the high complexity in the connection of the workforce from one country to another.

Similar to all mediating network firms, it is not easy for Company C to transfer the value of the network from one market to another. In this specific case, the platform and the whole customer interface need to be adapted to the national markets because the company focuses on either the offer or the supply of freelance workforce.

Company D is a mediating network firm for doctors and their patients. It is not internationalized and does not intend to do so in the near future because the network in which it operates lacks international affiliations. Its internationalization would imply starting from zero in the new market.

Company E is an online marketing agency that helps large retail companies convert offline traffic to online newsletter registrations. The company is highly internationalized but operates from only one local office. Its services are individually adapted to its customers, and the consultation is therefore independent of national borders. The value offered is not standardized. The value is created following the value shop logic. The markets of Company E are selected based on demand. As the company offers a niche market product, Hennart's (2014) accidental internationalist theory may apply. However, in the case of Company E, the internationalization is absolutely planned. The company is not internationalizing because of its internal capabilities or resources but because of its value proposition with the possibility to be offered across national borders.

Company F is a digital marketing agency that provides customized consulting for young companies that want to build up a legal presence. The largest share of its activities is on international markets. The consultation is individualized and therefore independent of national borders and any major opportunities for standardization. It is therefore assigned to the value shop logic.

Figure 2 summarizes the case-specific analyses. The green cells show the market behavior of the value chain firms, the blue cells indicate the behavior of the mediating network firms, and the orange cells show the behavior of the value shop firms. The

market selection and the *speed* especially show dependencies on the type of value creation logic.

Value creation logic	Internet-based company	Customer interface	Local partnerships	Foreign markets	Motivation	Market selection	Market entry	Speed
Value chain	A	B2C	No	1 (but plans for whole EU)	Economic	Psychic distance - process model	Offshoring of location-specific activities	After being stable in home market
	B	B2C	No	4 (but plans for whole EU)	Economic	Psychic distance - process model	Economic	After being stable in home market
Mediating network	C	C2B	No	5 (but only first 2 successful)	Economic, growing network	User-following	Only online	Immediately, but then no more
	D	B2C, B2B	-	0	-	-	-	Never
Value shop	E	B2B	No	> 5	Economic, Opportunity seeking	Global, Client-following	No local partners	Immediately
	F	B2B	Yes	> 5	Economic, Opportunity seeking	Global, Client-following	Offshoring of location-specific activities	Immediately

Notes: B2C = business to customer; B2B = business to business; C2B = customer to business

Figure 2. Summary of the case-specific analyses

Value chain firms seem to show the importance of an internationalization process involving countries of which they have knowledge. Company A has chosen to take the first step to enter a neighboring market. The firm's entrepreneurs prefer this neighboring country so that they can get in better contact with the local partners to which they have outsourced the location-specific activities. Therefore, digitalization has not totally diminished the importance of physical proximity. The CEO of Company B also possesses substantial knowledge of the market potential in the neighboring country.

Both companies internationalized just after their business processes worked in the domestic market. This would explain the speed of the internationalization but also depended on the moment when the companies considered their processes stable and standardized. Notably, mediating network firms also follow strategies that are in line with the theoretical assumption that network companies will not internationalize fast. Both companies (C and D) lack an actively ongoing internationalization process.

Company D has not started any internationalization at all. The reasons given are the missing network opportunities and the value proposition to its consumers, in which value is solely provided through the large number of relevant parties, such as pharmacies and doctors already being integrated into the network. Company C is slowly proceeding even if there are major plans. The case-specific analyses show the

network firms' difficulties in proceeding with their internationalization once they have established their user base in the target markets.
The network firms show a particular way of internationalizing, and the main issue is the liability of outsidership. A network cannot provide any value to customers if it has not reached a critical mass of users so that the network growth becomes self-sustaining (Brouthers et al., 2015). The critical mass of users also needs to be relevant to potential users. In many cases, network members from other nations do not provide value to potential new members.

Both value shop firms (E and F) internationalized immediately after their foundation, and they are both active in more than five foreign markets. Both do not actively pursue targeting one specific market but follow their clients and the next best economic opportunity.

Company E has tried to target specific markets and to offshore its sales department to improve its local sales relationship with potential clients. However, these strategies have not worked out, and the respondent from company E explains these phenomena as third-party sales people's inability to convey to prospective customers the potentials of the customized consultancy based on the online IT software of the company. This outcome is in line with the theoretical argumentation that tacit knowledge is hardly transferable to third parties. Digital projects are often evolving fast, so the respondent states that in a centered approach involving all product development and sales people working in the same office, the communication channel between the sources of the product innovation and the final consumer is shorter.

Conclusion

Our study has a fourfold contribution, as follows:
(i) The conditions in the digital market environment change the strategic approaches of the firms. Most crucially, the way to gain a competitive advantage in the market is revolutionized due to the profoundly different characteristics of digital goods compared with physical products. The scalability of the cost structure offers a competitive advantage for physical production processes, but it is a common characteristic among digital products and does not constitute a competitive edge anymore. Today, factors such as online reputation and service quality are more important. The reduced asset and location specificity has a facilitating impact on internationalization efforts.
(ii) These new characteristics of the digital marketplace are also reflected in a changed approach to internationalization, which especially requires an adaptation of MNE-based theories, such as the Uppsala approach or the internalization strategy. More recent internationalization theories such as the IE approaches appear to reflect better the rules of the digital market environment because they have been created by also considering the behavior of smaller companies.
(iii) The BM concept can help provide a structure to the large number of variables in the IB theories. The BM literature has introduced different approaches to the

definition of a BM. A differentiation in the value proposition, value creation and delivery, and value capture is recommendable as a framework for a differentiation of internationalization strategies among different types of IBCs.
(iv) A differentiated analysis of IBC internationalization shows that IBCs need to be considered as forming a heterogeneous group. The analysis has connected the most relevant contributions of the three research fields of digitalization, internationalization, and BM research.

Certain components of the BM of IBCs affect the heterogeneous internationalization patterns of IBCs. The relation of the value proposition to internationalization strategies has strong evidence but is not explained by the *traditional* or the *IE* theories. It has been confirmed that both the customer interface and the value creation logic are relevant variables. The value creation and delivery method is reflected in many of the traditional internationalization theories and remains crucial. The value capture dimension is found to be less determining, as it itself is a determinant of the first two BM components.

The theoretical implication of this article is that individual internationalization behaviors are determined by both the value proposition and the value creation and delivery infrastructure components. So far, IB literature has only focused on the impact of the latter. Recent publications (Autio & Zander, 2016; Hazarbassanova, 2016; Hennart, 2014) claim to have identified the value proposition as the decisive factor for the internationalization strategy. Noteworthy, this study contributes a description of *why* no exclusive BM component uniquely determines the internationalization strategy of digital businesses.

For practitioners, this study provides an understanding of how the particular components of their BMs impact their respective internationalization processes.

Limitations of this study are in both domains theory building and providing empirical evidence. With respect to theory building, this study is clarifying concepts and their interrelations building upon well-established theories. Thus, the contribution is limited to theory maintenance rather than making up new elements. We aim to establish a clear understanding of the entrepreneurial digital BM's influences on the internationalization process. Therefore, our research design does not cover the confirmatory testing of competing for theoretical explanations, what could become promising venues for further research activities. Our qualitative research design addresses the question of *how* and *why* (Yin, 2017), however an analysis of the leverage of impacts needs a quantitative sample or-at best-a meta-analysis. Moreover, we are working with theories developed using examples in Western business contexts and provides empirical evidence from Western businesses. Adopting Non-Western theories and examples will broaden the view. Our article aims to develop a comprehensive understanding of how digital companies are internationalizing and why their internationalization processes differ from one another. The article structures a complex and dynamic strategic topic, with substantial relevance for theory and practice. Connecting the research fields of *digitalization, international strategy*, and *BMs* integrates their separate innovative insights into a common understanding of differentiated digital internationalization.

References

Afuah, A. (2003). Redefining firm boundaries in the face of the internet: Are firms really shrinking? *Academy of Management Review*, 28(1), 34–53.

Andersson, S. (2011). International entrepreneurship, born globals and the theory of effectuation. *Journal of Small Business and Enterprise Development*, 18(3), 627–643.

Autio, E., and Zander, I. (2016). Lean internationalization. *Academy of Management Proceedings*, 1, 2-27.

Brouthers, K.D., Geisser, K.D., and Rothlauf, F. (2015). Explaining the internationalization of ibusiness firms. *Journal of International Business Studies*, 47(5), 513–534.

Bunduchi, R. (2005). Business relationships in internet-based electronic markets: The role of goodwill trust and transaction costs. *Information Systems Journal*, 15(4), 321–341.

Cao, L., Navare, J., and Jin, Z. (2018). Business model innovation: How the international retailers rebuild their core business logic in a new host country. *International Business Review*, 27(3), 543-562.

Coase, R.H. (1937). The nature of the firm. *Economica*, 4(16), 386–405.

Foss, N.J., and Saebi, T. (2017). Fifteen years of research on business model innovation: how far have we come, and where should we go? *Journal of Management*, 43(1), 200-227.

Hagen, B., and Zucchella, A. (2014). Born global or born to run? The long-term growth of born global firms. *Management International Review*, 54(4), 497–525.

Hazarbassanova, D.B. (2016). The value creation logic and the internationalisation of internet firms. *Review of International Business and Strategy*, 26(3), 349–370.

Hennart, J.-F. (2014). The accidental internationalists: A theory of born globals. *Entrepreneurship Theory and Practice*, 38(1), 117–135.

Johanson, J., and Vahlne, J.-E. (1977). The internationalization process of the firm - a model of knowledge development and increasing foreign market commitments. *Journal of International Business Studies*, 8(1), 23–32.

Johanson, J., and Vahlne, J.-E. (1990). The mechanism of internationalisation. *International Marketing Review*, 7(4), 11-25.

Knight, G.A., and Cavusgil, S.T. (2004). Innovation, organizational capabilities, and the born-global firm. *Journal of International Business Studies*, 35(2), 124–141.

KPMG (2009). Emerging Business Models to Help Serve Tomorrow's Digital Tribes. Retrieved from http://www.kpmg.com/Global/en/IssuesAndInsights/ArticlesPublications/Documents/Emerging-business-models-digital-tribes.pdf

Lewin, A.Y., and Volberda, H.W. (2011). Co-evolution of global sourcing: The need to understand the underlying mechanisms of firm decisions to offshore. *International Business Review*, 20(3), 241–251.

Mahnke, V., and Venzin, M. (2003). The internationalization process of digital information good providers. *Management International Review*, 43(1), 115–143.

Mayring, Ph. (2000). Qualitative Inhaltsanalyse. *Forum Qualitative Social Research*, 1(2). Retrieved from http://www.qualitative-research.net/index.php/fqs/article/view/1089/2385.

Osterwalder, A., Pigneur, Y., and Tucci, C.L. (2005). Clarifying business models: Origins, present, and future of the concept. *Communications of the Association for Information Systems*, 16(1), 1-13.

Porter, M.E., and Heppelmann, J.E. (2015). How smart, connected products are transforming companies. *Harvard Business Review*, 93(10), 96-114.

Richardson, J. (2008). The business model: An integrative framework for strategy execution. *Strategic Change*, 17(5–6), 133–144.

Schallmo, D. (2015). *Bestehende Ansätze zu Business Model Innovationen: Analyse und Vergleich der Geschäftsmodelle*. Berlin: Springer.

Stabell, C.B., and Fjeldstad, Ø.D. (1998). Configuring value for competitive advantage: On chains, shops, and networks. *Strategic Management Journal*, 19(5), 413–437.

Teece, D.J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28(13), 1319–1350.

Weill, P., and Woerner, S.L. (2015). Thriving in an increasingly digital ecosystem. *MIT Sloan Management Review*, 56(4), 27-34.

Yin, R.K. (2017). *Case Study Research and Applications: Design and methods*. Thousand Oaks: Sage.

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