

## Digitalization and Early Internationalization: Systematic Literature Review Analyses

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### Abstract

*Substantial anecdotal evidence has been garnered to make it uncontentious to concede to studies that stress on the influence of digital technology on early internationalization of firms. Having an interest to study how studies on this phenomenon has progressed overtime. The present paper systematically evaluates internationalization literature in which issues of digitalization feature as a component underlying the causes, processes, and outcomes of early internationalization. We contribute by proposing several future research directions.*

**Keywords:** Digitalization, early internationalization, digital technology

### 1. Introduction

There is a continuing increase in the early internationalization of firms induced by digitalization. Since the 1990s when the internet and related digital tools were developed, there have been dramatic changes in the way international marketing is conducted. Digitalization has contributed to the changing of the environment, new business processes, new business models, new managerial models (Nam & Kannan, 2020; Ojala, Evers & Rialp, 2018), and even reshaped how firms build and manage global brands (Steenkamp, 2020). The tremendous impact of digitalization may even demand the unlearning of many previous marketing practices applied in the field of international marketing (Sheth, 2020). Digitalization has created an opportunity for firms to overcome the geographical limitations of distance, thereby adding to the importance of early internationalization for firms. Early internationalization refers to the early leap of firms into foreign markets after their foundation (Knight & Cavusgil, 2004). Such firms have been assigned various names but the most

commonly used are international new ventures (INVs) (Oviatt et al., 1994) and born globals (BGs) (Rennie, 1993; Chetty & Campbell-Hunt, 2004).

Within academia, early internationalization has prompted researchers to investigate digital perspectives. In the field of international marketing, for example, studies center on the use of the internet in international marketing activities (e.g., Shaheer, Li & Priem, 2020; Sinkovics, Sinkovics & Jean, 2013; Moen, Endresen & Gavlen, 2003; Prasad, Ramamurthy & Naidu, 2001). Notwithstanding the progress, the research advances do not provide a full understanding of how the studies have progressed over time. To advance the international business research field, we consider it appropriate to conduct a systematic literature review on the phenomena. Existing related review was that of Vadana, Kuivalainen, Torkkeli and Saarenketo (2020). They provide insights on the influence of digitalization on international activities born digitals, but we argue that still there is a significant research gap. They focused on born digitals and their activities but our study extends to focus specifically on how digitalization feature as a component underlying the causes, processes, and outcomes of early internationalization.

Specifically, we have two aims. First, the paper aims to synthesize and identify the research themes, theories and methods used to investigate the phenomenon in the reviewed studies. Second, to provide suggestions for further study and future directions based on information extracted from the articles reviewed. By doing so, we offer the following contribution. According to Jean, Kim and Cavusgil (2020), digital technologies have become more appealing to early internationalizing firms, therefore, the present systematic review contributes to research on digitalization and early internationalization by presenting new insights to advance future theoretical development; thus,

responding to recent calls for more research on the role of digital tools in internationalization (Katsikeas, Leonidou & Zeriti, 2020).

## 2. Method

Digitalization is assigned different meanings depending on the context. Building on prior definitions (see Table 1), in this study we define it as the use of digital technologies and infrastructure in the operations of firms, which Autio, Nambisan, and Thomas (2018) label digital affordances. We adopted a systematic literature review process advocated by Tranfield, Denyer, and Smart (2003) for this review. Following a review protocol, the author used Emerald, EBSCO, Science Direct, and ProQuest databases to source articles. The current review spans from 1994–2021. In 1994, Oviatt and McDougall’s highly influential paper on INVs appeared (Oviatt & McDougall 1994) just as digital technologies had started to become more common in the form of personal computer and internet use, and importantly Netscape had introduced graphical web browsers at the 1990s. Therefore, it could be expected that firms began using such digital technologies when internationalizing from 1994 onwards. Our focus is on conceptual and empirical peer-reviewed articles, and we decided to include journals that can be traced from our chosen databases.

**Table 1. Prior definitions of digitalization**

Definition
Digitalization is the use of digital technology, and digitized information, to create and commercialize value (Gobble, 2018)
“Digitalization is the use of digital technologies to innovate a business model and provide new revenue streams and value-producing opportunities in industrial ecosystems” (Parida, Sjödin & Reim, 2019, p. 6)
It is the exploitation of digital opportunities. For instance, using different technologies (e.g., cloud technologies, sensors, big data, 3D printing) to develop new products, services and business models (Rachinger, et al. (2019)

Our main keywords were “early internationalization”, “rapid internationalization”, earliness of internationalization”, “born global”, “born international”, “born regional”, “international new venture”, “instant international”, “instant exporters”, “international ventures”, “infant multinationals”, “instant internationals”, “global start-ups”, “early adopters of internationalization”, “border firms”, “borderless firms”, “infant multinationals”, “global

start-ups”, “early adopters of internationalization”, “border firms”, “borderless firms”, “gazelles”, “global knowledge intensive firms”, “high technology start-ups”, “new technology-based firms”, “geographically focused start-up”, “export start-up”, “import start-up”, “multinational trader”, and “global start-up”. Bearing in mind the differences in spellings between American english and British english, we used both internationalisation” (British english) and “internationalization” (American english) in the search processes. We used secondary key words such as “digitalization”, “digitalisation”, “digital technology”, “digital orientation”, “digital capability”, “ICT capability”, “ICT orientation”, “IT capability”, “IT orientation”, “Internet”, “Internet of things”, “cyberspace”, “block chain”, “social media”, “social networking”, “born digital”, “i-business”, “e-business”, and “e-commerce”. After the search process, we manually reviewed the individual titles, abstracts, and contents of the articles obtained. Those that did not directly discuss the topic were omitted and the outcome was 97 relevant articles.

## 3. Results of Analyses

### The interface of digitalization and antecedents of early internationalization

The literature review includes 43 articles on the interface of digitalization and antecedents of internationalization on three specific levels: environment, firm, and entrepreneur.

#### The environment level

We discovered nine studies relating digital technology to environment-related features (e.g., Oyson, 2018; Zalan, 2018; Langseth, O’Dwyer & Arpa, 2016; Kudina, Yip & Barkema, 2008; McCormick & Somaya, 2020). We categorized the focus of those studies into two sub-themes: digital technology as an environmental force, and advances in technology in the business environment.

Studies related to digital technology as an environmental force recognize the internet and other digital orientated technologies as forces that stimulate early and rapid internationalization (e.g., Oyson, 2018; Zalan, 2018; Langseth et al., 2016; Kudina et al., 2008; Hamill, 1997). Focusing on the effect of international environment changes on the firm, Oyson (2018) found that one of the enabling factors that led to the emergence of small global firms was the ubiquity of the internet. Similarly, Langseth et al. (2016) found four forces that strongly influence the speed of internationalization in small and medium-

sized enterprises (SMEs), and among them was the enabling force of technology, particularly ICT.

Advances in technology within the business environment include the upsurge of new digital technologies such as blockchain technology, e-business opportunities, the IoT, virtual communication, e-learning, etc. Kudina et al. (2008) assert these technologies explain why small ventures rapidly become players on the global stage, sometimes more quickly than larger competitors. Zalan (2018) in his conceptual paper cites the influence of blockchain technology in accelerating the internationalization of BGs.

This research category contributes to our understanding of how technological advances in the form of digital innovations (e.g., blockchain technology, e-business, the IoT, etc.) in the environment offer opportunities for early internationalization rather than merely presenting a challenge to be overcome. The findings will alert scholars to novel research opportunities arising as a result of digital innovations emerging from the environment.

### **The firm level**

The articles reviewed revealed two firm-related sub-themes. The first theme centers on digital capability and the second on the firm type. In all, there were 28 articles with these themes (e.g., Jean & Kim, 2019; Tabares, Alvarez & Urbano, 2015; Bell et al., 2010; Kotha et al., 2001).

Studies show the importance of digital capability in supporting early and rapid foreign market entry (e.g., Jean et al., 2019; Tabares et al., 2015). Jean et al. (2019) explain that exporters utilize their platform and web capabilities to support their marketing capabilities, which then translates into export performance. Similarly, Kotha et al. (2001), found the ability of firms to employ websites in their operations had a positive influence on their international presence, in that the more data were sent and received by visitors to the firm's website, the more knowledge the firm acquired on visitors to support its internationalization decision-making process. The findings of Kotha et al. (2001) have contributed to our understanding of the significant positional role that a corporate website plays in early internationalization decisions. Nevertheless, the reviewed papers do not greatly expand our understanding of the relation between a corporate website and early internationalization; that is likely to remain the case until more research focuses on how website traffic drives early internationalization. Digital capability is also related to multifaceted

ability because it acts as a driver of early and rapid internationalization and an enabler of effective development of the overall strategy of the firm. This is a conclusion evident in a framework developed by Loane, McNaughton, and Bell (2004) in a study concentrating on the internationalization strategies of internet start-ups. This category of research contributes to our understanding of the role of digitalization as an organizational capability during early internationalization. It extends further to reveal the digital competencies required by early internationalizing firms if they are to thrive in the current business climate.

The firm types seem also to differ in terms of the influence of digital technology. From the reviewed articles, digital technology is found to influence family business internationalization (e.g., Plakoyiannaki, Kampouri, Stavradi & Kotzaivazoglou, 2014) and start-ups somewhat differently (Bailetti & Zijdemans, 2014; Hagen & Zucchella, 2011; Loane, McNaughton & Bell, 2004). In family business internationalization, Plakoyiannaki et al. (2014) found that digital technology enables family businesses to compete in geographically distant markets; a finding that led the authors to coin the term e-born global family businesses. There is a body of research on family businesses but research on e-born global family businesses is scarce. This area warrants research attention if we are to fully comprehend the influence of digitalization on the strategic decisions of family members, and the impact on the internationalization of their businesses. These types of family firms often have relatively few employees and digital technology can, therefore, be an invaluable asset. We can also recognize a firm type called the e-business start-up. Hagen et al. (2011) empirically found that the possibility of an e-business firm becoming a BG depends on the strategic use of the internet, and how it is embedded in the firm's operations. This research category broadens our knowledge to understand that becoming an e-business does not necessarily mean that the firm is a BG. Domestic firms can also be e-businesses, but differences lie in the use of the internet, and how the website is developed. Rapidly internationalizing firms often need a multilingual website while domestic firms can have a unilingual site. In the context of cybersecurity start-ups, Bailetti et al. (2014) found that one of the actions that enhance early and rapid globalization of such firms is the possibility that the firm can address existing market gaps by using the internet as a global sales conduit to generate leads and an overall increase in demand. Bailetti et al. found that digital technology is not a necessary condition for early and rapid

internationalization, but BGs can use it to create strategies that bring efficiency gains compared to the competition. The various categories of firms identified in the reviewed articles show that the importance of digital technology in inducing early internationalization is not restricted to a specific kind of firm. The key factor affecting the extent of the impact of digital technology is the manner in which it is implemented. This category of research advances our knowledge on digital processes and tools that facilitate internationalization processes in firms.

### **Entrepreneur level**

Studies examining digital technology as an entrepreneur-related feature point to how the entrepreneur utilizes digital capability to drive early internationalization. The reviewed papers included six studies in this category (Li et al., 2018; Maltby, 2012; Glavas, Mathews & Russell-Bennett, 2019). We categorized the content of those three into two themes, namely, outsourced digital capabilities and entrepreneur's digital capabilities. For the former, Li et al. (2018) showed how entrepreneurs with inadequate digital capabilities could drive a digital transformation in their cross-border business operations. Early internationalizing firms lack a resource advantage (Dunning, 1980), and Li et al. found examples of entrepreneurs lacking digital resources soliciting support from dominant digital platform service providers to foster the early internationalization of their ventures. In contrast, studies have shown how entrepreneurs with adequate digital capabilities can use online social media networks to rapidly internationalize. Maltby (2012) reports entrepreneurs with digital capabilities (e.g., an advanced social media capability) develop effective mutual relationships with customers and partners and increase their tacit knowledge for rapid internationalization. Similarly, Glavas et al. (2019) show how internet-enabled experiences enable the entrepreneur to generate both explicit and tacit forms of knowledge to support the early phases of the internationalization process. The aforementioned studies contribute to our understanding of how important digital technology is in the internationalization process. Glavas et al. (2019) establish the efficacy of an entrepreneur's digital capabilities in driving early and rapid internationalization; however, how that entrepreneur acquires digital skills remains unclear. Understanding that process would considerably broaden our knowledge.

In contrast to the findings on the enabling role of digitalization in early internationalization, we found

two articles that underestimate the role played by digitalization in born global firms. The first is by Chetty and Campbell-Hunt (2004) and it argues that digital technology is not a necessary condition for early and rapid internationalization, however, BGs can use it to create strategies that bring efficiency gains compared to the competition. The second is by Manning, Larsen, and Bharati (2015) and explains that the impact of digitalization on the physical distance to potential clients and markets is of less importance in born global industries. Therefore, we argue that the recognition of digitalization being a driver among BGs in part depends on the industry of the firm. Manning et al. (2015) studied firms in the global IT and business process outsourcing industry. Surprisingly, in such an industry, the impact of digitalization on the physical distance to potential clients and markets proved of less importance but the speed of service delivery and access to talent were the major elements driving the global configuration of service delivery units across time zones (Manning et al., 2015). The finding provides new insights into the existing differences in how industries perceive digitalization in their operations and offer a basis for potential future comparative studies across industries on how BGs or INVs perceive the role of digital technologies in their internationalization operations. We acknowledge that digital capability alone can seldom trigger early internationalization, but further research will provide more justifiable evidence to resolve the inconsistencies between the two opposing views proposed by scholars. In sum, from a theoretical standpoint, studying digitalization and internationalization at the entrepreneur level contributes to existing studies on the entrepreneur's role in the internationalization of an SME.

### **The interface of digitalization and early internationalization processes**

There were considerably more articles on the interface of digitalization and early internationalization processes than the interface of digitalization and antecedents of early internationalization. In total, we found 66 articles. Our review is focused on the inherent activities in the process. By inference from the reviewed articles, we have obtained evidence on the role of digital technology in the entrepreneurial activities inherent in the early internationalization process. Entrepreneurial activities include opportunity recognition, creation of entry strategies, the emergence of business models, management of foreign transactions and communication, international knowledge acquisition, and overcoming

of liabilities of foreign market entry. First, in the reviewed articles, we found that little study has been conducted on opportunity recognition (e.g., Glavas et al. 2017). Glavas et al. (2017) found that the internet enables international entrepreneurial firms to realize international opportunities. For example, the opportunity to create new businesses in digital and internet-based environments, to discover information about buyers, to support the buying process, and to build positive brand meanings. Second, the reviewed articles reveal the extent to which digitalization has been discussed in the entry strategies of early internationalization processes of firms both conceptual (e.g., Jaw et al., 2006; Grönroos, 2016) and empirical (e.g., Mahnke & Venzin, 2003; Fuerst, 2010; Yoos, 2012; Neubert, 2018). These studies have contributed to our understanding of how the internet and mobile technologies have enabled new ways of internationalizing activities globally from the inception of a firm. Through digital technology, we now have e-commerce, where the firm can operate in a foreign country without necessarily being physically present. Despite the contributions made by scholars, we found that studies on how digitalization influences entry strategy choice decisions were arguably scarce. Third, the reviewed articles report how internationalization processes have been facilitated by information and communications technology (e.g., Google, Facebook). Morgan-Thomas and Bridgewater (2004) empirically, showed the role of the internet in the successful implementation of business models (i.e., virtual export channels) of firms focusing on foreign markets, and the finding was confirmed conceptually by Andersson, Evers, and Kuivalainen (2014). In addition to digital technology leading to the creation of business models, Autio (2017) also showed that digital infrastructures enable INVs to experiment with their business models. Apart from the business model perspective, Servais, Madsen, and Rasmussen (2006) showed that the internet facilitates product development and relationship building processes. Fourth, we found scholars providing in-depth studies on the influence of digital technology in foreign transaction processes of early internationalizing firms (e.g., Gabrielsson & Gabrielsson, 2011; Hinson, Sorenson & Buatsi, 2007; Andersen 2005; Gabrielsson & Kirpalani, 2004). These studies have contributed to our understanding of how digital technology has changed the conventional way of managing foreign transactions. Before the era of digitalization, export and related foreign transactions were managed using intermediaries and agents. However, research indicates that international firms have adopted the internet as delivery and payment

media, for example, receiving revenues and cash flow, getting paid for exports, or paying for raw materials used in production (e.g., Gabrielsson et al., 2004; Hinson et al., 2007). Similarly, concerning communication, studies provide evidence of the role of digitalization that encompasses how digitalization enables INVs to communicate cheaply with stakeholders and to meet the explicit and implied needs of global customers (e.g., Tanev, 2012). These studies emphasize the positive roles of digitalization. In contrast, studies focusing on the drawbacks of digitalization in the management of foreign transactions and communication among small firms, particularly INVs are scarce. Fifth, several studies among the reviewed articles focused on the entrepreneurial process of knowledge acquisition (e.g., Moen, Endresen & Gavlen, 2003; Tran, Yonatany & Mahnke, 2016; Glavas, Mathews & Russell-Bennett, 2019). These studies have enhanced our understanding of the role of digital technology in knowledge acquisition such as searching for information about customers, distributors, partners, and competitors, which forms part of the internationalization process activities. Finally, a couple of studies focused on how digital technology supports the efforts of early internationalizing firms to overcome the liabilities associated with foreign market entry (Arenius, Sasi & Gabrielsson, 2005). These studies provide an alternative perspective on how the liabilities of smallness, and newness (i.e., the questionability of legitimacy) could be mitigated.

### **The interface of digitalization and outcomes of early internationalization processes**

The reviewed papers illustrated four thematic areas on the interface of digitalization and outcomes of early internationalization, each of which we discuss below. First, we found only three studies investigating the relationship between digitalization and speed of internationalization (i.e., the rapid development of new foreign markets) (e.g., Neubert, 2018). Notwithstanding the lack of research attention, the study contributed to our understanding of the dynamic ability of digital technology in the behavior of firms during internationalization processes. Under the main theme, we derived an increase in decision-making efficiency as a sub-theme. Neubert (2018) shows that digitalization improves decision-making efficiency and strategy optimization for the evaluation and rapid development of new markets. In the past, firms have had to spend huge sums traveling to gather foreign market information, however, the influx of internet-enabled tools like big data and predictive analytics can relieve the stress of traveling

to gather information, thereby reducing the risk of market uncertainty in strategic decision-making processes (Neubert & Van der Krogt, 2018).

Second, we found eight studies reporting that digitalization leads to a positive international market performance. Subsequently, we derived the following sub-themes: promotion of transparency, promotion of competitive edge, development of opportunities, availability of market information, and promotion of online presence. These sub-themes represent the motives behind how digitalization influences positive international market performance. For example, Neubert and Van der Krogt (2018) found that the effective use of big data and predictive analytics to evaluate markets supports international strategic decision-making processes, which enhance export performance and international competitiveness. Another motive is the efficacy of digital technology in generating information availability, as reported in the study of Bianchi and Mathews (2016). The researchers found that the efficient use of the internet for marketing activities positively influences the accessibility of export information, subsequently influencing the firm's relationship with networks and export market growth. Using internet marketing activities encapsulates online channel support and sales, communication, networking, market research, sales, and image enhancement (Lu & Julian, 2007). Lastly, both Sinkovics et al. (2013) and Wang et al. (2011) show that the efficient use of online channel support and sales generates sales growth and sales volume.

Third, we found four articles investigating the role of digitalization in positive international market and financial performance. Those articles led us to derive the following sub-themes affecting the role: cost reduction and development of marketing capabilities. Lu and Julian (2007) show that the effective and efficient use of internet technology promotes cost reductions in IB operations when ventures use it for communication, networking, market research, sales, image enhancement, and online transactions, which in combination can significantly enhance export marketing performance. Moreover, Zhang et al. (2013) show that using digital technology to reduce cost can also have a positive influence on both international marketing performance and financial performance. The study found that effective IT capability reduces the cost of communicating with foreign customers/suppliers, of gathering information about foreign competitors, and of the enhancement of distinctive competencies and skills in other business functions that promotes profitability, sales growth, increases sales volume, strategic global competitiveness, and improves

strategic positioning and market share. In the quest for marketing capabilities development, Prasad et al. (2001) and Mostafa et al. (2005) show that the use of digital technology has a positive impact on export performance in terms of sales growth, market share, the achievement of strategic objectives, and profitability.

Following Katsikeas, Leonidou, and Morgan (2000) logic of performance assessment, the current literature review identified effectiveness and efficiency among the articles considered (e.g., Glavas et al., 2017; Sinkovics et al., 2013). However, one element missing that merits research attention is how digitalization engenders the adaptiveness of early international firms (Domurath et al., 2020). The findings broaden our understanding on the importance of digital technology in enhancing efficiency and effectiveness in early internationalization.

### **Theoretical approaches**

In all, 54 of the reviewed articles focused on specific theories, and 43 were more general. First, while internationalization process models (i.e., the stage model, Johanson et al., 1977) have been used in this research stream, the emphasis among the articles reviewed here tends to be on how BGs and INVs deviate from the gradual stepwise process reported in the original theoretical work. The differences noted usually rate to the speed of internationalization and the process not necessarily mirroring the stages outlined.

The second often used theory is transaction cost analysis (Williamson, 1985). The utilization of this theory has crystallized the impact of digital technology on transactions associated with early foreign market entry and how early foreign entry is organized. For example, applying this theoretical underpinning, Andersen (2005), found that the internet could change the traditional way of organizing international activities. Using the context of exporting, Andersen asserts that the use of the internet has brought about unbundling of export marketing activities such as marketing, logistics and administration, prompting new forms of specialized activities among actors. Transaction cost analysis has also enhanced the understanding of the increased utilization of internet sales channels among early internationalizing firms (e.g., Gabrielsson & Gabrielsson, 2011) due to decreased transaction costs.

The third frequently used theory is the resource-based view or RBV (Barney, 1991). Researchers utilizing this theory have focused on internet-enabled

capabilities (e.g., Jaw et al. 2006; Tabares et al. 2015; Lee et al. 2019). The RBV clarifies how the digital capabilities and the integration of resources influence the entry strategies of early internationalizing firms and their sustained performance (e.g., Lee et al. 2019; Jaw et al. 2006).

The fourth prominent theory is entrepreneurial opportunity theory albeit one rarely referenced in the articles reviewed; however, Glavas et al. (2019) did integrate it with the RBV and claims doing so enhances the understanding of how internet capabilities and resources enable early internationalizing entrepreneurial firms to realize international opportunities.

Although digitalization is associated with information systems management literature, none of the reviewed articles utilized information systems theories or information economics theories (e.g., Spence, 1973; Rogers, 1995) which is surprising given the important role they could have in understanding the phenomena.

#### **Methodological approaches**

The methods utilized by the various empirical studies differ. Some approached their studies either from qualitative perspective. They sprang from single case study (e.g. Arenius et al., 2005; Ojala et al., 2018) to multiple case study (e.g. Chetty & Campbell-Hunt, 2004). Among the qualitative case studies, few are longitudinal (e.g. Arenius et al., 2005; Ojala et al., 2018). Advantageously, these studies have provided us the opportunity to understand the context of how digitalization is perceived in early internationalization process. However, we consider the inability of generalization as a drawback in the sense that most of the studies focused on small samples (e.g. Arenius, et al. 2005; Fuerst, 2010). In view of this, more multiple qualitative case studies are encouraged. This method will enable us to have a holistic understanding that can serve as basis for generalization.

Others that approached from quantitative perspective mostly adopted survey method (e.g. Kotha et al., 2001; Deng & Wang, 2016). The objectivity nature of quantitative studies, provides justification for these studies to be generalized. However, similar to the qualitative studies under review, most of the quantitative studies are cross-sectional. There is little emphases on longitudinal studies and absence of mixed approach studies.

#### **4. Discussion and Future Directions**

The review findings show that there have been considerable advances in understanding the influence of digital technology on early internationalization.

Firstly, the current review illustrates that most of the articles discuss digital technology as more of a firm-related feature (i.e., an organizational capability) influencing early internationalization than a feature of the general environment. There seems to be little research on the role of digital technology as a feature of the business environment and how it influences early internationalization. Research on how the accessibility of digital technologies in digital economies influences early internationalization would promote an understanding of the ongoing digital transformation processes in territories and the extent to which those processes contribute to the internationalization of ventures. Digital technology as an entrepreneur-related feature is also sparsely addressed. Entrepreneur-related features such as age, skills, education, and international experience have attracted the attention of early internationalization researchers (e.g., Sekliuckiene, 2017; Nayyar, 2016), unlike digital capability. These cited exemplars have demonstrated how entrepreneur-related features contribute to the success of the early entry of firms into the international market arena, it is therefore prudent to extend future studies that focus on the entrepreneur's digital capabilities.

Secondly, social networking is a significant channel known in the IE to influence early internationalization (Oviatt et al., 1994; Fuerst & Zettinig, 2015; Williams, Du & Zhang, 2020) and by engaging in social networking, new ventures have the opportunity to acquire knowledge by imitating others (Zou & Ghauri, 2010). However, in the reviewed articles, we did not find any article on social networking and how it translates to opportunity recognition in a digital context (i.e., social media). There are prior studies (e.g., Coviello, 2006) on the topic but derived from a non-digital context. Future studies might investigate how social media drives early internationalization and opportunity recognition, a research direction that would enhance the understanding of some of the roles of social media in new ventures' internationalization.

Thirdly, according to scholars including Johanson and Vahlne (2009), foreign market entry is fraught with the liability of outsidership (i.e., recognition as an outsider among existing networks in the new market), and it would be interesting for future studies to consider how digital technology supports the efforts of early internationalizing firms

to overcome that liability. Another area that merits research attention is adaptation and standardization. The papers reviewed here reveal that born global firms adopt an internet-based sales channel strategy to serve global markets. In contrast, we argue that internet-based sales channels might not be feasible in all countries as a result of institutional boundaries and policies. Future studies on adaptation and standardization (e.g., Fuerst, 2010) of internet-based sales channels will enhance our understanding of how small firms manage their foreign marketing activities. Digitalization requires firms to adapt previous behavior and may demand the unlearning of marketing practices formerly applied to advance international marketing. For example, according to Sheth (2020), the axiom “think global, act local” will be replaced by “think local, act global”.

Fourthly, the reviewed studies emphasize the positive roles of digitalization, we therefore encourage future studies to focus on the drawbacks of digitalization in the management of foreign transactions and communication among early internationalizing firms. Such studies will enable us to have a fuller picture of the effects of digitalization on foreign transaction management and communication.

Further, future studies should focus on the improvement of theoretical approaches. Most of both conceptual and empirical studies reviewed were not associated with any theoretical paradigm. We argue for the use of theoretical perspectives in the study of the phenomenon in the sense that theories present a systematic way of understanding behaviors and events. We need to move forward from descriptive studies describing the use of digital technologies to a deeper theoretical understanding of the mechanism and reasons for the underlying relationships. We, therefore, propose a more frequent application of theoretical approaches in future studies and developing theories that can explain the intersection of digital technologies and the earliness of firm internationalization.

Finally, future studies should also focus on the improvement of methodological approaches particularly focusing on mixed methods which is scarce in the research domain. Mixed methods provide an in-depth understanding of events and phenomena when methods can be triangulated.

## 5. Conclusion

This review has enabled us to outline the major research areas in terms of research themes, and theoretical approaches. As a result, we have illuminated some future research avenues and issues

developed based on the findings from the review articles. We make recommendations concerning interesting new research areas, theoretical and methodological advances. In practical terms, this review provides insights to managers and entrepreneurs to help understand the role of digitalization—in terms of the important drivers, processes, and outcomes that can help to optimize the use of digitalization and performance in the early internationalization processes of their firms.

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