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Digitalisation, Digital Services and Companies' Internationalisation: A Literature Review

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Abstract

Digitalisation provides unprecedented opportunities for companies to operate globally. These opportunities have given rise to a growing number of studies regarding the interrelated topics of digitalisation, digital services and international business. In this systematic literature review, we reviewed 41 journal articles on this multidisciplinary topic in order to provide an overview of the current themes and roles of digitalisation in companies' internationalisation. We found that the existing studies mainly tested the applicability of previous international business theories in the digital era, instead of trying to develop new frameworks and models. Additionally, while the reviewed papers highlighted the importance of digitalisation and digital services, they rarely indicated the specific details explaining how or why digitalisation enables the internationalisation of companies. From this review, we would suggest that the theories drawn from international business and information systems need to be better integrated. We would also call for a deeper investigation into the idiosyncratic nature of the characteristics of digital services, which would help to develop this emerging research area.

Keywords: Digitalisation, Digital services, Internationalisation, Information systems, International business

1.0 Introduction

Research regarding digitalisation and its impact on companies' international operations has recently generated growing interest. Digitalisation provides opportunities to bring new types of innovations to international markets (Nambisan, 2017; Parker et al., 2016; Yoo, 2012), and digital services provide new ways for companies to expand and globalise their offerings (Pettersen & Colbjørnsen, 2019; Plakoyiannaki et al., 2014). Consequently, digitalisation and digital services are seen as phenomena that will radically change the way in which companies enter international markets and how we conceptualise the 'internationalisation' of business (cf. Coviello et al., 2017; Knight & Liesch, 2016; Ojala et al., 2018).

While digitalisation and digital services are commonly perceived as topics relating to information systems (IS), companies' international operations are usually studied by international business (IB) scholars. However, the internationalisation of digital services links these two fields and connects IB and IS studies. Studies regarding IS can help us to better understand how and why digital services can help companies to enter, and be more competitive in, international markets, whereas IB studies provide insights into how and why companies internationalise their operations. For instance, digitalisation might provide new international business opportunities where '...the nature of offering, the distribution channels, the pricing strategy, may differ fundamentally' from that of traditional companies (Coviello et al., 2017, p. 1152). As a result, digitalisation in general, and the emergence of digital platforms in particular, are revolutionising the way in which companies enter global markets and operate internationally.

The importance of this topic is well illustrated by the fact that digital platform providers have dominated global markets for years. For instance, the world's four most valuable brands belong to companies

(Apple, Google, Amazon and Microsoft) that provide digital platforms and related innovations globally (USA Today, 2018). In addition, there are a growing number of smaller companies entering the digital business world – either by providing their own digital platforms or digital content and services for established platforms (Knight & Liesch, 2016). Therefore, this study links the fields of IB and IS, meaning it can draw from and advance knowledge in both disciplines. As an emerging research topic, this literature review will enhance our understanding of the relationship between digitalisation, digital services and the internationalisation of companies.

Based on the above discussion, we have reviewed the existing academic literature regarding digitalisation in the context of companies' internationalisation. As our general aim is to advance knowledge of this emerging area and provide guidance for further studies, we aimed to address the following three research questions: 1) What are the main themes connecting digitalisation, digital services and IB? 2) What is the role of digital services in companies' international operations? 3) How can the phenomenon be studied in the future to better understand the interactions between digital services and internationalisation?

2.0 Scope and Analytical Approach of the Review

To identify the studies for our review, we applied a systematic literature review based on guidelines introduced by Tranfield et al. (2003) and Webster and Watson (2002). We started the process by identifying the most relevant keywords. As digitalisation in the context of companies' internationalisation is a relatively new and multidisciplinary topic, we chose not to limit our literature search to specific journals or scientific fields. Ultimately, we ended up with a wide range of results from several databases, which minimised the risk of omitting any relevant publications.

To locate the relevant studies, we used keyword combinations related to internationalisation, such as 'Internationalisation' and 'Foreign market', with keywords related to digitalisation, such as 'Digitalisation', 'Digitisation' and 'Digital'. Our search included titles, abstracts, keywords and full texts. The databases used were ScienceDirect, IEEE Xplore, ProQuest, Ebsco, Emerald and Wiley. These databases include the main publications from IB and IS fields. We included only academic peer-reviewed journal articles in our review. Similar to other reviews, studies appearing in non-English publication outlets were omitted.

The literature search was conducted during February 2021 and resulted in 578 hits. However, we found that most of the papers were actually related to either digitalisation or internationalisation and that these topics were rarely connected. Furthermore, we found many duplications between the various databases used. After removing the duplications and papers that were outside the scope of the review, we ended up with 41 relevant articles. These articles are marked with '*' in the list of references. Most of the papers were published between 2014 and 2021 (with one being published in 2003 and another in 2011), indicating the newness of the topic. The articles were published across a diverse range of management and business journals. Six of the papers were published in the *Journal of International Business Studies* and seven in *Technology Innovation Management Review* (this had a special issue covering this topic). The remaining articles were evenly divided between the remaining journals. Table 1 provides an overview of the bibliographic sources.

We used thematic content analysis (Corbin & Strauss, 2014) to analyse the data. We first organised the key information from the articles, including the aim of the study, theoretical perspective(s), method(s) applied, industry sector, sample size, main results related to the role of digital services and

characteristics of digital services. This helped us to organise the data and provide a better understanding of the content of the articles. In line with the purpose of the study, three themes emerged from the review: 1) appropriateness of previous theories in explaining the internationalisation of digital-based companies; 2) the role of digitalisation in internationalisation and 3) the digital platform as a delivery channel. These themes are presented and discussed in the results section.

Insert Table 1 here

3.0 Results

We will now summarise the methodological observations from the reviewed papers. Following this, we will present the three themes emerging from the review. The aim of the following sub-sections is to present the current knowledge on the topic. This will serve as a baseline for the next section, where we will highlight future research avenues.

3.1 Methodological observations

Fifteen of the reviewed articles applied qualitative methods, 14 used quantitative methods, 10 were purely conceptual and two were literature reviews. These methodological choices indicate the newness of the field. In 'emerging' fields, qualitative and conceptual methods are usually applied, as there are no established theories to guide research (Edmondson & McManus, 2007). However, the number of quantitative papers appeared to be growing, especially from 2019 onwards. All the qualitative papers applied the case-study method. The number of cases varied from one to 16. Overall, the case-study (single and multiple) approach proved useful for generating new theories and models, as well as for theory testing (by combining established theoretical insights with managerial attitudes in order to gain a better understanding of the processes of internationalisation) (cf. Eisenhardt & Graebner, 2007; Siggelkow, 2007).

In the quantitative papers, the sample size varied between 127 and 20153. The aim of these studies was to acquire a more generalised overview of well-studied phenomena, such as assessing the impact of cultural distance on the internationalisation of digital services (e.g. Vendrell-Herrero et al., 2018) or to extend and refine the results of previous studies (e.g. Chen et al., 2019). The conceptual papers created theoretical links between established internationalisation theories and models and the new phenomenon of the internationalisation of digital services/product providers. Literature review papers focused on the impact of the digital transformation of small and medium-sized enterprises (SMEs) on internationalisation capability (Dethine et al., 2020) and how the impact of digital technologies on the internationalisation of SMEs has been acknowledged in the literature (Hervé et al., 2020).

3.2 Appropriateness of previous theories in explaining the internationalisation of digital-based companies

Eighteen of the 41 articles reviewed were mainly concerned with how the existing theories can be used to explain the internationalisation of digital-based companies. These articles examined (or discussed) mainly the theoretical relevance of the Uppsala model (e.g. Monaghan et al., 2020; Wentrup, 2016; Wentrup et al., 2019; Wittkop et al., 2018), but also transaction cost theory (Jean et al., 2020) and internalisation theory (Fraccastoro et al., 2021; Li et al., 2019). Related to the Uppsala model, the results were somewhat contradictory as some of the results concluded that the model could not explain the phenomenon (e.g. Wentrup et al., 2019) or that it could only partially be used (Monaghan et al., 2020;

Wentrup, 2016; Wentrup et al., 2019; Wittkop et al., 2018). In these studies, Wentrup et al. (2019) studied a trust-building mechanism between a digital platform (Uber) and digital workers (Uber drivers) during the process of foreign market entry. They concluded that the existing international business theory (Johanson & Vahlne, 1977, 2009) could not adequately explain the complexity of digital business relationships in an international context. Wentrup (2016) studied online service providers that are dependent on digital delivery channels. The study found that these companies did not follow the patterns highlighted in the Uppsala model (Johanson & Vahlne, 1977, 2009). However, it also found that a combination of different theories could shed further light on explaining the internationalisation processes of digital service providers. Wittkop et al. (2018) studied the internationalisation of internet-based companies operating in digital markets. They found that traditional IB theories, such as the Uppsala model, can still have a significant impact on the internationalisation strategies of internet-based companies. However, they suggested that in highly dynamic digital markets, there is a need for further variables and combinations of different theories (see e.g. Monaghan et al., 2020) to better explain the internationalisation of these companies.

Brouthers et al. (2016) and Chen et al. (2019) also applied the Uppsala model. These papers extended ideas regarding the liability of foreignness and the liability of outsidership, which were adapted from the Uppsala model (Johanson & Vahlne, 1977). They indicated that instead of the liability of foreignness, which refers to the unfamiliarity of the market and lack of legitimacy, digital platform companies can encounter the liability of outsidership, referring to the creation of user and partner networks in new foreign markets (Brouthers et al., 2016; Johanson & Vahlne, 1977). Brouthers et al. (2016) showed that the liability of outsidership could inhibit the internationalisation of platform providers (the same argument can be found in Monaghan et al. (2020)). Chen et al. (2019) extended and refined the results of Brouthers et al. (2016) by showing that the liability of outsidership can be mitigated by being the first to enter high-clout countries, that is, countries that have the capacity to influence other countries through economic and social relationships (van Everdingen et al., 2009).

The papers that applied a wider theoretical lens to study the internationalisation of digital-based companies agreed that there is a need to refine existing theories to better explain the phenomenon. Mahnke and Venzin (2003) studied the ways in which product characteristics shape the internationalisation processes of digital goods providers. They concluded that the stage models of internationalisation, internationalisation theory and international new venture (INV) theory only partly explained the internationalisation processes of the companies under review. The authors recommended new theory development for companies based on the specific product characteristics of digital goods providers. The inadequacy of existing theories was also visible in the works of Hazarbassanova (2016) and Zalan (2018). In her study regarding the different types of digital service companies, Hazarbassanova (2016) found that all three companies used different approaches to internationalisation, mainly because of differences in their value creation. Her conclusion was that the theory should be selected based on a companies' activities in the market. Zalan (2018) alerted IB and IE scholars to a new phenomenon of 'blockchain' start-ups, indicating that these companies provide novel research opportunities. Based on the results, she recommended establishing a theoretical link between born global literature, platform economics and literature regarding the economics of information goods in order to better explain the international growth of blockchain start-ups. Overall, these studies highlight the fact that, if used in isolation, the existing theories applied in the field of IB can only partly explain the internationalisation of digital-based companies. The combination of different theories appears to work better. For instance, Ojala et al. (2018) applied several theories to study the internationalisation process of digital platform providers. They presented a new model that divides the internationalisation of these companies into two different pathways. The model was developed by

integrating ideas from resource-dependency theory, the network theory of internationalisation and literature regarding information systems. Fraccastoro et al. (2021) also integrated insights from internationalisation theory with the network theory of internationalisation to study social media for internationalisation. They also suggested that further studies are necessary to combine these two theories in the context of internationalisation and digitalisation. However, there seems to be limited research efforts to develop new theories and models to better explain this phenomenon.

3.3 The role of digitalisation in internationalisation

The role of digitalisation in the international operations of a company was studied in several articles. However, the actual role was not always clearly discussed. Four of the papers reviewed (Autio, 2017; Coviello et al., 2017; Grönroos, 2016; Monaghan et al., 2020) overlapped with the theme discussed in the previous sub-section, as they aimed to extend or refine previous internationalisation models and theories. However, the main focus of these papers was the crucial role of digitalisation in the internationalisation of a company. For example, in his conceptual work, Autio (2017) developed a normative framework that explains how INVs develop sustainable competitive advantages. The study highlights that digitalisation is changing the internationalisation of INVs, making markets inherently global and demonstrating that some arguments used in previous internationalisation theories were becoming less relevant. Closely related to previous internationalisation theories, the conceptual paper by Coviello et al. (2017) examined two topics that were absent from the latest version of the Uppsala model (Johanson & Vahlne, 2017): the impact of digitalisation and the role of individuals. Coviello et al. (2017) noted that in a digital company, the nature of the offering, distribution, value chains and pricing strategies may differ fundamentally from those in traditional companies. In addition, they argued that digitalisation changes the timing, pace and rhythm of internationalisation, location choice and entry model selection. The commentary paper by Monaghan et al. (2020) discussed how automation, network effects, flexibility and scalability impact on the internationalisation of born digital companies. Grönroos (2016) also presented a conceptual validation and update of his previous work on the internationalisation strategies of services (Grönroos, 1999). He argued that the model is still valid, but that digitalisation, the internet and mobile technologies facilitate new ways of internationalising and offering services globally.

Several papers (Fraccastoro et al., 2021; Hassouneh & Brengman, 2011; Järviemi et al., 2020; Neubert, 2018; Pergelova et al., 2019; Stallkamp & Schotter, 2021) in this category studied how digital services impact companies' internationalisation. Hassouneh and Brengman (2011) examined how virtual environments can operate as internationalisation and marketing channels for SMEs. Based on the literature, they developed a model for internationalisation by using virtual environments. They concluded that these provide a unique opportunity for SMEs to internationalise at a rapid pace.

In their conceptual work, Stallkamp and Schotter (2021) focused on the internationalisation strategies of digital platform providers. They introduced the distinction between within-country and cross-country network externalities and discussed the heterogeneous impact of these different network externalities on the international strategies of platform companies. They also concluded that digitalisation makes physical distance less relevant, although other distance factors, such as culture, language and regulations, might still be valid. Neubert (2018) conducted an empirical study of the impact of digitalisation on the internationalisation speed of lean global start-ups. Based on interviews with 73 senior managers, he concluded that digitalisation enhances decision-making efficiency, helps optimise strategies and allows companies to more efficiently enter foreign markets. Pergelova et al. (2019) studied how digital services affect the international expansion of female chief executive officer-led

SMEs. They argued that digital services have the potential to democratise entrepreneurship by helping to provide better access to international market knowledge and facilitating interaction with partners and customers. Among a sample of 300 Bulgarian SMEs, they found positive impacts of digital services on female-led SME internationalisation. Studies by Fraccastoro et al. (2021) and Järviemi et al. (2020) reviewed the impact of social media on companies' internationalisation. Fraccastoro et al. (2021) showed how entrepreneurial companies overcame opportunism and related liabilities by using social media with foreign partners. According to Järviemi et al. (2020), social media provides data that can make it easier to understand the roles of foreign markets, customers, competitors and actors in international supply chains.

3.4 The digital platform as a delivery channel

Six of the reviewed papers focused on digital platforms as a delivery channel. Pettersen and Colbjørnsen (2019) studied both digital and physical delivery channels used by Norwegian booksellers. They found several challenges relating to foreign market entry, mainly in terms of convincing readers to switch from traditional to digital books and the intense competition created by international digital booksellers. Additionally, they found that international markets for digital goods were less regulated compared with local markets in Norway, which created disadvantages for Norwegian digital booksellers. In their study, Shaheer and Li (2020) also focused on factors that could hinder the internationalisation speed of apps in Apple's app store. They investigated how cultural, administrative, geographic and economic (CAGE) distances influenced the international expansion of these apps. They found that although the apps were available globally via online platforms, their international penetration was still influenced by CAGE distances. These distance factors served as user adoption barriers that inhibited the apps' internationalisation. The speed of internationalisation was also examined by Ziyae et al. (2014), who studied the impact of entrepreneurs' international experiences and companies' innovation and marketing capabilities in relation to the speed of the internationalisation of internet-based electronic business companies. Their results indicated that these factors were positively related to the speed of foreign market entry by the studied companies.

Plakoyiannaki et al. (2014) and Vendrell-Herrero et al. (2018) focused on the international opportunities created by digital entry modes and delivery channels. Plakoyiannaki et al. (2014) investigated the use of digital entry modes by family-owned companies. They found that digital entry modes and new technologies helped to identify international opportunities and reduce information asymmetries in foreign markets. The companies studied proactively utilised social networking, e-commerce and Web 2.0 technologies to enable international expansion. Vendrell-Herrero et al. (2018) investigated the opportunities created by digital services for cultural industries to expand internationally. The results support theoretical predictions that Britishness, cultural distance, exoticness, brand image and flag-brand congruence are positively related to the internet-based purchasing decisions of foreign customers. Steel (2021) investigated the internationalisation opportunities provided by digital platforms and how these could facilitate female entrepreneurs' global e-commerce-based companies in Sudan.

4.0 Toward a Future Research Agenda

We propose a future research agenda and emerging research topics based on the reviewed literature. Overall, the existing literature is relevant and useful; however, it fails to make the full theoretical link between internationalisation and digitalisation. The studies reviewed mainly applied theories from IB literature and there was a rather meagre integration of IS literature. Notwithstanding, this provides

several opportunities to enrich the current research on this topic. We have identified a number of areas for further research.

First, all the studies highlighted the importance of digital services to companies' internationalisation. They showed that digitalisation makes markets inherently global (e.g. Brouthers et al., 2016), makes services instantly accessible around the world (Chen et al., 2019; Grönroos, 2016) and provides new ways to enter foreign markets (Pettersen & Colbjørnsen, 2019; Plakoyiannaki et al., 2014). However, there seems to have been a lack of a deeper understanding of digital services and technologies, as these studies took digitalisation as given. That is, the studies did not indicate *how* or *why* digitalisation gave the reported benefits. We believe that this research would benefit from an integration of IB literature with IS literature regarding the specific characteristics of digital services, i.e. digital artefacts (Gabrielsson et al., 2021; Kallinikos et al., 2010, 2013; Monaghan et al., 2020). The IS literature would provide a better explanation of the peculiarities of the digital services that enable companies to become more international, providing more nuanced results. For instance, what are the roles of editability, interactivity, reprogrammability and the product agnostic nature of digital artefacts (Gabrielsson et al., 2021; Kallinikos et al., 2010, 2013; Ojala et al., 2020; Yoo et al., 2010) in companies' internationalisation? The integration of these characteristics would also provide better theoretical reasoning as to the questions of how and why digitalisation can make companies more international.

Second, as highlighted above, IB scholars have mainly applied IB theories and tested how these theories can be used to explain companies' internationalisation in the digital era. In particular, the Uppsala model (Johanson & Vahlne, 1977, 2009) was applied, discussed and refined in several of the reviewed papers. Although the Uppsala model has its own merits, its relevance can be questioned in terms of developing our understanding of the internationalisation of digital-based companies. This was further illustrated by several other studies, which called for new theories and models to better explain the phenomenon (e.g. Autio, 2017; Coviello et al., 2017; Wentrup, 2016). Therefore, moving forward, we would encourage scholars to develop new theories and models to explain this particular phenomenon. These would also benefit from integrating ideas from IS theories, such as the technology acceptance model (TAM) and its expansions (Davis, 1989; Davis et al., 1989; Venkatesh & Davis, 2000). The usage of TAM would help to bring new insights to explaining why some users start using new digital services provided by foreign companies and some do not.

Third, the works reviewed were not very specific about the study sample used. For instance, both Brouthers et al. (2016) and Chen et al. (2019) labelled the companies studied as 'ibusiness' companies. However, Brouthers et al. (2016) focused on digital platform providers, whereas Chen et al. (2019) studied digital content providers. Also, one of the aims of Chen et al. (2019) was to extend and refine the research of Brouthers et al. (2016) in relation to the liability of foreignness. As shown by Ojala et al. (2018), different types of digital service providers internationalise their operations in different ways. This might also relate to digital platform and content providers. Moreover, we can assume that digital platform providers internationalise differently from digital content providers, as they operate at different layers of a layered modular architecture (cf. Ojala et al., 2018; Yoo et al., 2010). That is, digital platform providers operate mainly at the service layer, providing platform services to two-sided markets, whereas digital content providers operate one-sided markets at the content layer, providing content for one or several platform(s) (Eisenmann et al., 2006; Lusch & Nambisan, 2015; Yoo et al., 2010). How much of the sample companies' operating logic (e.g. the sample related to companies providing digital platforms, digital content or digital devices) impacts on the internationalisation process and, consequently, on the research results is an interesting question that requires further empirical investigation.

Finally, the actual role of decision-makers, such as managers or entrepreneurs, was not very clear in the papers reviewed. This was also highlighted by Coviello et al. 2017 (p. 1155): 'To understand a firm's behaviour, we must understand the individual driving the firm'. That is, there is a need for studies to investigate the roles and actions taken by entrepreneurs when they develop their digital services for global markets. For instance: What types of actions are taken? How do these actions push a digital platform or service towards international markets? What is the path-dependency of these actions? What is the decision-making logic? These studies would benefit from importing entrepreneurship theories, such as effectuation and causation (Sarasvathy, 2001), to explain entrepreneurial decision-making logic during the internationalisation process of a digital service.

5.0 Conclusions

This literature review set out to advance the understanding of recent literature regarding the effect of digitalisation on companies' international operations. We reported the main themes and methodological approaches of 41 studies in the field. Although the reviewed articles provided useful results and expanded our knowledge of the topic, we have provided several ways in which the existing knowledge can be advanced.

The results showed that a majority of the papers examined how previous theories could be used to explain the internationalisation of companies in the digital era and how digital services can advance companies' international operations. However, there was little attempt to develop new frameworks, models or theories that would better explain this phenomenon. Furthermore, we found a lack of studies with an aim of integrating existing IB and IS theories. We also found that although some papers highlighted the important role of digitalisation, there was a lack of research in this area. IS studies regarding digitalisation and digital services would therefore provide new insights for advancing IB research.

Finally, this study is not without limitations. Although we used several keywords and databases, the total coverage of all articles in this specific field of study may not have been achieved. Nevertheless, it is reasonable to assume that this review process did cover a major proportion of the academic articles related to the topic at the time of the database search. However, due to the multidisciplinary nature of the topic, the expansiveness of digitalisation and the different reporting styles in the reviewed articles, it was a challenging task, and we may have overlooked some relevant articles.

As this specific field of research is still at an early stage of development, we hope that our proposed research agenda will benefit further studies. We especially hope that scholars in the field will integrate more digitalisation-related insights from IS studies into their internationalisation-related research, and focus on the development of detailed theories and models to explain the interaction between digitalisation and companies' international operations.

References

Autio, E. (2017). Strategic Entrepreneurial Internationalization: A Normative Framework. *Strategic Entrepreneurship Journal*, 11(3), 211-227.*

Brouthers, K. D., Geisser, K.D., & Rothlauf, F. (2016). Explaining the internationalization of ibusiness firms. *Journal of International Business Studies*, 47(5), 513-534.*

Chen, L., Yi, J., & Li, S. (2019). International penetration of ibusiness firms: Network effects, liabilities of outsidership and country clout. *Journal of International Business Studies*, 50, 172-192.*

Corbin J., & Strauss A. (2014). Basics of qualitative research: Techniques and procedures for developing grounded theory, California: Sage.

Coviello, N., Kano, L., & Liesch, P. W. (2017). Adapting the Uppsala model to a modern world: Macro-context and microfoundations. *Journal of International Business Studies*, 48(9), 1151-1164.*

Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly* 13(3), 319-340.

Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User Acceptance of Computer Technology: A Comparison of Two Theoretical Models. *Management Science* 35(8), 982-1003.

Dethine, B., Enjolras, M., & Monticolo, D. (2020). Digitalization and SMEs' ExportManagement: Impacts on Resources and Capabilities. *Technology Innovation Management Review*, 10(4), 18-34.*

Edmondson, A. C., & McManus, S. E. (2007). Methodological fit in management field research. *Academy of Management Review*, 32(4), 1155-1179.

Eisenhardt, K. M., & Graebner, M. E. (2007). Theory building from cases: Opportunities and challenges. *Academy of management journal*, 50(1), 25-32.

Eisenmann, T., Parker, G., & van Alstyne, M. W. (2006). Strategies for Two- Sided Markets. *Harvard Business Review*, 84(10), 92-101.

Fraccastoro, S., Gabriellson, M., & Chetty, S. (2021). Social Media Firm Specific Advantages as Enablers of Network Embeddedness of International Entrepreneurial Ventures. *Journal of World Business*, 56(3), 101164.*

Gabriellson, M., Fraccastoro, S., Ojala, A., & Rollins, M. (2021). Digital Entrepreneurial Internationalizers: Definitions, Theoretical Implications, and Research Avenues. *Proceedings of the Annual Hawaii International Conference on System Sciences*.

Grönroos, C. (1999). Internationalization strategies for services. *Journal of services marketing* 13(4-5), 290-297.

Grönroos, C. (2016). Internationalization strategies for services: a retrospective. *Journal of Services Marketing*, 30(2), 129-132.*

Hassouneh, D., & Brengman, M. (2011). Virtual worlds: A gateway for SMEs toward internationalization. *Journal of Brand Management*, 19(1), 72-90.*

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

Hervé, A., Schmitt, C., & Baldegger, R. (2020). Internationalization and Digitalization: Applying digital technologies to the internationalization process of small and medium-sized enterprises. *Technology Innovation Management Review*, 10(7), 28-40.*

Jean, R-J., Kim, D., & Cavusgil, E. (2020). Antecedents and outcomes of digital platform risk for international new ventures' internationalization. *Journal of World Business*, 55(1), 101021.*

Johanson, J., & 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., & Vahlne, J. -E. (2009). The Uppsala internationalization process model revisited: From liability of Foreignness to Liability of Outsidership. *Journal of International Business Studies*, 40(9), 1411-1431.

Johanson, J., & Vahlne, J. -E. (2017). From internationalization to evolution: The Uppsala model at 40 years. *Journal of International Business Studies* 48(9), 1087-1102.

Järviemi, J., Hallikainen, H., & Laukkanen, T. (2020). Using Social Media to Extract Indirect Experiential Knowledge for the Internationalization of an Entrepreneurial Firm. *Electronic Journal of Knowledge Management*, 18(1), 56-67.*

Kallinikos, J., Aaltonen, A., & Marton, A. (2010). A theory of digital objects. *First Monday*, 16(6).

Kallinikos, J., Aaltonen, A., & Marton, A. (2013). The Ambivalent Ontology of Digital Artifacts. *MIS Quarterly*, 37(2), 357-370.

Knight, G. A., & Liesch P. W. (2016). Internationalization: From incremental to born global. *Journal of World Business* 51(1), 93-102.

Li, J., Chen, L., Yi, K., Mao, J., & Liao, J. (2019). Ecosystem-specific advantages in international digital commerce. *Journal of International Business Studies*, 50(9), 1448-1463.*

Lusch, R. F., & Nambisan, S. (2015). Service innovation: A service-dominant logic perspective. *MIS quarterly*, 39(1), 155-175.

Mahnke, V., & Venzin, M. (2003). The Internationalization Process of Digital Information Good Providers. *Management International Review*, 43(1), 115-142.*

Monaghan, S., Tippmann, E., & Coviello, N. (2020). Born digitals: Thoughts on their internationalization and a research agenda. *Journal of International Business Studies*, 51(1), 11-22.*

Nambisan, S. (2017). Digital Entrepreneurship: Toward a Digital Technology Perspective of Entrepreneurship. *Entrepreneurship Theory and Practice*, 41(6), 1029-1055.

Neubert, M. (2018). The impact of digitalization on the speed of internationalization of lean global startups. *Technology Innovation Management Review*, 8(5), 44-54.*

- Ojala, A., Evers, N., & Rialp, A. (2018). Extending the international new venture phenomenon to digital platform providers: A longitudinal case study. *Journal of World Business*, 53(5), 725-739.*
- Ojala, A., Rollins, M., Fraccastoro, S., & Gabrielsson, M. (2020). The Internationalization of B2B Digital Platform Providers: The Role of Cross-National Distance and Digital Characteristics. *Proceedings of the Annual Hawaii International Conference on System Sciences*.
- Parker, G. G., Alstynne, M. W. V., & Choudary, S. P. (2016). *Platform Revolution: How Networked Markets Are Transforming the Economy – and How to Make Them Work for You*. W.W. Norton & Company.
- Pergelova, A., Manolova, T., Simeonova-Ganeva, R., & Yordanova, D. (2019). Democratizing Entrepreneurship? Digital Technologies and the Internationalization of Female-Led SMEs. *Journal of Small Business Management*, 57(1), 14-39.*
- Pettersen, C. T., & Colbjørnsen, T. (2019). Omnichannel and Digital-Only: Analyzing Digital Bookselling Operations in Four Norwegian Bookstores. *Publishing Research Quarterly*, 35, 108-121. *
- Plakoyiannaki, E., Kampouri, A. P., Stavraki, G., & Kotzaivazoglou, I. (2014). Family business internationalisation through a digital entry mode. *Marketing Intelligence & Planning*, 32(2), 190-207.*
- Sarasvathy, S. D. (2001). Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of management Review*, 26(2), 243-263.
- Shaheer, N. A., & Li, S. (2020). The CAGE around cyberspace? How digital innovations internationalize in a virtual world. *Journal of Business Venturing*, 35(1), 105892.*
- Siggelkow, N. (2007). Persuasion with case studies. *Academy of management journal*, 50(1), 20-24.
- Stallkamp, M., & Schotter, A. P. J. (2021). Platforms without borders? the international strategies of digital platform firms. *Global Strategy Journal*, 11(1), 58-80.*
- Steel, G. (2021). Going global – going digital. Diaspora networks and female online entrepreneurship in Khartoum, Sudan. *Geoforum*, 120, 22-29.*
- Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a Methodology for Developing Evidence-Informed Management Knowledge by Means of Systematic Review. *British Journal of Management* 14(3), 207-222.
- USA Today (2018). *What are the world's most valuable brands? Tech companies like Apple, Google and Amazon*. Retrieved 13th of April 2021 from: <https://eu.usatoday.com/story/money/business/2018/10/09/most-valuable-brands-apple-google-amazon/38061893/>
- van Everdingen, Y., Fok, D., & Stremersch, S. (2009). Modeling global spillover of new product takeoff. *Journal of Marketing Research*, 46(5), 637-652.

Vendrell-Herrero, R., Gomes, E., Collinson, S., Parry, G., & Bustinza, O. F. (2018). Selling digital services abroad: How do extrinsic attributes influence foreign consumers' purchase intentions? *International Business Review*, 27(1), 173-185.*

Venkatesh, V., & Davis, F. D. (2000). A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies. *Management Science*, 46(2), 186-204.

Webster, J., & Watson, R. T. (2002). Analyzing the past to prepare for the future: Writing a literature review. *MIS quarterly* 26(2), xii-xxiii.

Wentrup, R. (2016). The online-offline balance: internationalization for Swedish online service providers. *Journal of International Entrepreneurship*, 14(4), 562-592.*

Wentrup, R., Nakamura, H. R., & Ström, P. (2019). Uberization in Paris – the issue of trust between a digital platform and digital workers. *Critical perspectives on international business*, 15(1), 20-41.*

Wittkop, A., Zulauf, K., & Wagner, R. (2018). How Digitalization Changes the Internationalization of Entrepreneurial Firms: Theoretical Considerations and Empirical Evidence. *Management Dynamics in the Knowledge Economy*, 6(2), 193-207.*

Yoo, Y. (2012). Digital Materiality and the Emergence of an Evolutionary Science of the Artificial. In P. M. Leonard, B. A. Nardi, and J. Kallinikos (Eds.) *Materiality and organizing: Social interaction in a technological world*, (pp. 134-154). Oxford University Press.

Yoo, Y., Henfridsson, O., & Lyytinen, K. (2010). The New Organizing Logic of Digital Innovation: An Agenda for Information Systems Research. *Information Systems Research*, 21(4), 724-735.

Zalan, T. (2018). Born global on blockchain. *Review of International Business and Strategy*, 28(1), 19-34.*

Ziyae, B., Sajadi, S. M., & Mobaraki, M. H. (2014). The deployment and internationalization speed of e-business in the digital entrepreneurship era. *Journal of Global Entrepreneurship Research*, 4(1), 1-11.*

Articles included into the review but not cited in the text:

Banalieva, E. R., & Dhanaraj, C. (2019). Internalization theory for the digital economy. *Journal of International Business Studies*, 50(8), 1372-1387.*

Denicolai, S., Zucchella, A., & Magnani, G. (2021). Internationalization, digitalization, and sustainability: Are SMEs ready? A survey on synergies and substituting effects among growth paths. *Technological Forecasting and Social Change*. 166.*

Lee, Y. Y., & Falahat, M. (2019). The Impact of Digitalization and Resources on Gaining Competitive Advantage in International Markets: The Mediating Role of Marketing, Innovation and Learning Capabilities. *Technology Innovation Management Review*, 9(11), 26-38.*

Luo, Y. (2021). New OLI advantages in digital globalization. *International Business Review*, 30(2), 101797.*

- Dillon, S. M., Glavas, C., & Mathews, S. (2020). Digitally immersive, international entrepreneurial experiences. *International Business Review*, 29(6), 101739.*
- Glavas, C. & Mathews, S., & Russell-Bennett, R. (2019). Knowledge acquisition via internet-enabled platforms: Examining incrementally and non-incrementally internationalizing SMEs. *International Marketing Review*, 36(1), 74-107.*
- Hervé, A., Schmitt, C., & Baldegger, R. (2020b). Digitalization, Entrepreneurial Orientation and Internationalization of Micro-, Small- and Medium-Sized Enterprises. *Technology Innovation Management Review*, 10(4), 5-17.*
- Mäki, M., & Toivola, T. (2021). Global Market Entry for Finnish SME eCommerce Companies. *Technology Innovation Management Review*, 11(1), 11-21.*
- Shaheer, N. A., Li, S., & Priem, R. (2020). Revisiting Location in a Digital Age: How Can Lead Markets Accelerate the Internationalization of Mobile Apps? *Journal of International Marketing*, 28(4), 21-40.*
- Vadana, I.-I., Torkkeli, L., Kuivalainen, O., & Saarenketo, S. (2019). Digitalization of companies in international entrepreneurship and marketing. *International Marketing Review*, 37(3), 471-492.*
- Velinov, E., Maly, M., Petrenko, Y., & Vassilev, V. (2020). The Role of Top Management Team Digitalization and Firm Internationalization for Sustainable Business. *Sustainability*, 12(22), 9502.*
- Westerlund, M. (2020). Digitalization, Internationalization and Scaling of Online SMEs. *Technology Innovation Management Review*, 10(4), 48-57.*

	Journal	2003	2011	2014	2016	2017	2018	2019	2020	2021	Total
1	<i>Electronic Journal of Knowledge Management</i>								1		1
2	<i>Geoforum</i>									1	1
3	<i>Global Strategy Journal</i>							1			1
4	<i>Critical perspectives on international business</i>							1			1
5	<i>International Business Review</i>						1		1	1	3
6	<i>International Marketing Review</i>							2			2
7	<i>Journal of Brand Management</i>		1								1
8	<i>Journal of Business Venturing</i>								1		1
9	<i>Journal of Global Entrepreneurship Research</i>			1							1
10	<i>Journal of International Business Studies</i>				1	1		3	1		6
11	<i>Journal of International Entrepreneurship</i>				1						1
12	<i>Journal of International Marketing</i>								1		1
13	<i>Journal of Services Marketing</i>				1						1
14	<i>Journal of Small Business Management</i>							1			1
15	<i>Journal of World Business</i>						1		1	1	3
16	<i>Management Dynamics in the Knowledge Economy</i>						1				1
17	<i>Management International Review</i>	1									1
18	<i>Marketing Intelligence & Planning</i>			1							1
19	<i>Publishing Research Quarterly</i>							1			1
20	<i>Review of International Business and Strategy</i>				1		1				2
21	<i>Strategic Entrepreneurship Journal</i>					1					1
22	<i>Sustainability</i>								1		1
23	<i>Technological Forecasting and Social Change</i>									1	1
24	<i>Technology Innovation Management Review</i>						1	1	5		7
	Total	1	1	2	4	2	5	10	12	4	41

Table 1. List of bibliographic sources